

DOCTORAL PROGRAMME IN ARCHITECTURE

UNIVERSITY OF LJUBLJANA, FACULTY OF ARCHITECTURE

Presentation of study programme:

1.

Data on study programme:

The doctoral study programme in Architecture lasts 3 years (6 semesters) and is comprised of a total of 180 ECTS-credits.

The study programme includes 60 ECTS-credits in organized study form, and 120 ECTS-credits of individual research work (basic or applied research). The organized forms are comprised of a general, architectural module and interdisciplinary optional modules, as well as of an annual research presentation (ranging from the presentation of the study plan to the defence of the dissertation).

The scientific title acquired by the doctoral student in the field of architecture is:

- Doctor of Science

The abbreviated form of the title placed in front of the name is: Dr.

2.

Basic goals of the programme and general competences

Basic goals:

The programme trains the independent scientific researcher in the widest problem area of architectural issues, demonstrating responsibility towards the cultural region and excellence at an international level. Responsibility for architecture as both a field of scientific research and a cultural region derives from the significance of architectural design, the quality of buildings harmonizing with the environment, respect for natural and urban landscapes, which is in the public interest. The quality of physical space is protected in the public interest by Slovenian and European legislation.

General competences:

- in-depth understanding of theoretical and methodological concepts deriving from the essence of architecture as science and art, and directly or indirectly related to architecture;
- qualification to independently develop new knowledge in the area of architecture as a generic field and/or in narrowly specified topics that are of significance in architecture and its connectedness with other areas;
- qualification to solve the most demanding problems by testing and improving established and discovering new solutions in achieving quality in architecture;
- qualification to manage the most demanding work systems and scientific research projects in a wide professional or scientific scope of spatial planning and design, emphasizing the quality of architectural space;
- qualification to develop critical reflection – social, group and personal research and/or creation.
- qualification to convey and communicate research results in the following cases:

- qualification of publishing scientific, professional and popular (for non-expert public) papers and other publications in the field of architecture
- qualification for transfer of scientific achievements and knowledge into architectural practice.

3.

Enrolment conditions and selection criteria in case of enrolment limitation

To enrol in the doctoral study programme in architecture, candidates must fulfil the following criteria:

- completion of the study programme of the second cycle (Bologna master degree);
- completion of uniform study programme comprised of 300 ECTS-credits (Bologna master degree);
- completion of existing study programme for the acquisition of university education;
- completion of existing specialist study programme upon conclusion of professional study programme at an institution of higher education, providing that the candidate has gained at least 30 ECTS in the uniform masters study programme Architecture from the following courses:
 - Architectural theory and critique,
 - Introduction to research in architecture and urbanism,
 - Theory of physical and regional planning,
 - Action planning and strategic assessment,
 - Design concepts,
 - Countryside settlement culture,
 - Art history,
 - Comprehensive preservation of built heritage,
 - Computer supported architecture and
 - Concepts of structures.

In accordance with the enrolment criteria, candidates can enrol in the doctoral study programme in architecture if:

- they have acquired a master's in science upon completion of the study programme for the acquisition of university education; at enrolment, the candidate shall be awarded at least 60 ECTS-credits in accordance with the law;
- they have completed the existing specialist study programme upon completion of the study programme for the acquisition of university education; at enrolment, the candidate shall be awarded at least 60 ECTS-credits in accordance with the law.

Should a resolution on enrolment limitation be adopted (in case the number of applying candidates who fulfil the enrolment criteria is in excess of enrolment places), **the candidates shall be selected according to:**

- **performance in prior studies** (20% weighting)
 - study programme of the second cycle (Bologna master degree) or
 - uniform masters study programme comprised of 300 ECTS-credits (Bologna master degree) or
 - existing study programme for the acquisition of university education or
 - existing specialist study programme upon conclusion of professional studies at an institution of higher education and the additional study obligations from the first paragraph of the enrollment conditions;

criteria are:

- **study grade average** (15 % weighting) **and**
- **grade of university diploma or masters thesis** (5% weighting);

and according to

- **success at the selection exam** (80% weighting).
The exam is comprised by written and oral parts. The following elements are assessed:
 - written and oral presentation of a Draft plan of doctoral studies

(also referred to as: outline of the doctoral study plan) prepared in accordance with the Regulations on the procedure for the acquisition of the title of Dr. - doctor of science at the Faculty of Architecture (60% weighting),

- recommendations of distinguished scientists (10% weighting),
- research work prior to programme enrolment (10 % weighting).

4.

Provisions on the recognition of knowledge and skills acquired prior to programme enrolment

Students' knowledge that, both in content and level of excellence, complies with the study programme they enrolled in can be recognised.

Upon the candidate's request, the doctoral studies committee shall examine the possibility of recognition of the knowledge and skills that the candidate acquired prior to programme enrolment and that can be asserted for the doctoral study programme in architecture. This examination shall consider, in particular, the following:

- content conformity with the Draft plan of doctoral studies or the Plan of doctoral studies (specifically with the proposed research topic as described in the document submitted in accordance with the Regulations on the procedure for the acquisition of the title of Dr. - doctor of science at the Faculty of Architecture), and
- compliance of quality level of performance (certificates, documents, reviews of research publications...) as evidence of knowledge and skills which the candidate wishes to assert in the programme.

5.

Conditions for promotion according to programme

Conditions for promotion to the next academic year

To be promoted from the first to the second year, the student shall:

- complete the **general module**;
- perform a written and oral **presentation of his/her doctoral study plan**; the presentation is positive if **approved** by the doctoral studies committee and the Senate of the **Faculty of Architecture**;
- be awarded a minimum of **45 ECTS-credits** in the first year of study.

To be promoted from the second to the third year, the student shall:

- complete the **architectural and interdisciplinary modules**;
- perform a written and oral **presentation of the topic of his/her doctoral dissertation** including the publication of a reviewed research article in an important magazine or a scientific chapter in a monograph (the habilitation criteria of FA and UL apply); the presentation is positive if the topic and the publication are **approved** by the doctoral studies committee and the Senate of the Faculty of Architecture;
- have an **approved topic for his/her doctoral dissertation at the University of Ljubljana**;
- have been awarded a minimum of **60 ECTS-credits**.

Conditions for temporary suspension of student status

A student may request temporary suspension of student status should he/she, for justified reasons, not be able to fulfil his/her student obligations. As such shall be considered: invalidity, illness (certificate of personal physician confirming an incapability of at least six months over the last year of study), maternity within the last three years of study, family and social circumstances in the last year of study (opinion of the Social Work Centre on his/her unfitness for study), top athlete or top artist status in the last year of study.

The doctoral studies committee of the Faculty of Architecture decides on temporary suspension of student status issues.

6.

Conditions for completion of studies

To conclude his/her studies, the student shall fulfil all obligations in all subjects that he/she has enrolled in (the compulsory publication of a scientific article in a magazine or chapter in a monograph shall be included in the "presentation of the doctoral dissertation topic" within the framework of the subjects of the second year – a requirement for enrolment in the third year of study), complete his/her individual research work, prepare a doctoral dissertation, present the results to the doctoral study committee prior to its defence, and also successfully defend the dissertation. The successful performance of the dissertation shall be examined by the committee for dissertation evaluation and defence in accordance with the Regulations on the procedure for the acquisition of the title of Dr. of science at the Faculty of Architecture of the University of Ljubljana.

7.

Transition between programmes

Transition from a different doctoral programme to the doctoral programme in architecture at the Faculty of Architecture of the University of Ljubljana is possible if the student fulfils the conditions of enrolment in this programme. The same applies to the transition from hitherto existing master's/doctoral or specialist study programmes. At transition the candidate shall submit a certified confirmation on fulfilled study obligations from the study institution where he/she was enrolled, as well as an official extract from the applicable study programmes within the framework of which the afore-mentioned obligations were fulfilled. The request for transition shall be approved by the doctoral study committee and the senate of the Faculty of Architecture – namely through recognition of the examinations, in the preparation process of the doctoral study plan. Upon verification, the content compliance with the programme to which the candidate wishes to transit, and in particular, compliance with the draft doctoral study plan or doctoral study plan shall be examined (more precisely: with the description of the research topic proposed in the document submitted pursuant to the Regulations on the procedure for the acquisition of the title of Dr. of science at the Faculty of Architecture).

8.

Assessment types

In accordance with the law, the assessment types do not need to be specifically defined. However, because the quality of studies at the doctoral level is very important, the quality control system is mentioned here.

Within the framework of the subjects of the general architectural and interdisciplinary module, an assessment scale from 1 to 10 is planned (1-5: insufficient; 6-10: sufficient, good, very good and excellent).

As a special form of organized studies, emphasis is laid on the annual quality control of the individual research work, which helps the mentor or the group of mentors ensure quality: in the first year, this regards the presentation of the study plan, in the second year the presentation of the topic, and in the third year the presentation of results prior to the defence as well as the defence of the dissertation. Upon control, this obligation is either fulfilled or not – and no assessment scale is foreseen for the individual research work either. The quality of the fulfilled obligation shall be evaluated descriptively, in accordance with the Regulations on the procedure for the acquisition of the title of Dr. - doctor of science) in the field of architecture. The following parties are in charge of the quality of studies: mentors or groups of mentors, the doctoral studies committee of the Faculty of Architecture with a review system, the Senate of the Faculty of Architecture, the professional committee for the assessment of the topic, the dissertation and the defence, appointed by the Senate of the Faculty of Architecture, the doctoral studies committee and the Senate of the University of Ljubljana, at the proposal of the doctoral studies committee.

9. Schedule of subjects of study programme

Code	Subject	semester				Σ hours of study commitment	Σ ECTS-credits
		winter		summer			
		lectures	other	lectures	other		

1st YEAR

1.1	General module	15	235	-	-	250	10
1.2	Architectural module	-	-	15	235	250	10
1.3	Presentation of doctoral study plan	-	125	-	-	125	5
1.4	Individual research work 1	-	375	-	500	875	35
	Total	15	735	15	735	1500	60

2nd YEAR

2.1	Interdisciplinary module	21	354	14	236	625	25
2.2	Presentation of topic of doctoral dissertation	-	125	-	-	125	5
2.3.	Individual research work 2	-	250	-	500	750	30
	Total	21	729	14	736	1500	60

3rd YEAR

3.1	Presentation prior to defence of dissertation and of doctoral dissertation	-	-	-	125	125	5
3.2	Individual research work 3	-	750	-	625	1375	55
	Total	-	750	-	750	1500	60

TOTAL STUDIES

	Organized study forms						60
	Individual study forms						120
	Total	2250	2250	4500			180

1.1 General Module

Introduction to Scientific Research
 Scientific Approaches, Methods and Research Presentation
 Scientific Research Subjects/Modules of Other Programmes

generic knowledge

(Lah / University of Ljubljana, Faculty of Architecture)
 (visiting lecturer)
 (teachers of generic subjects/modules)

10 ECTS

10 ECTS
 10 ECTS
 10 ECTS

1.2 Architectural Module

Architectural Theory and Critique
 Corpus of the Slovene Architecture
 Strategies of Architectural Design
 Architectural Research by Design
 Contemporary Approaches to Urbanism
 Scientific Approaches to Research in Architecture
 Scientific Research Subjects/Modules of Other Programmes

field-specific fundamentals

(Košir / University of Ljubljana, Faculty of Architecture)
 (Fister / University of Ljubljana, Faculty of Architecture)
 (Vodopivec / University of Ljubljana, Faculty of Architecture)
 (Ravnikar / University of Ljubljana, Faculty of Architecture)
 (Koželj / University of Ljubljana, Faculty of Architecture)
 (visiting lecturer)
 (teachers of architectural subjects/modules)

10 ECTS

10 ECTS
 10 ECTS
 10 ECTS
 10 ECTS
 10 ECTS
 10 ECTS

2.1 Interdisciplinary Module

deepening and/or cross-linking

25 ECTS

thematic modules/emphasis – relations (legend of B&W markings – titles, disposition and structure of components is (pre)defined in accordance with the research policy of FA)

- architectural theory and critique, corpus of the Slovene architecture – relation to humanism
- fine-arts and digital theory and methodology – relation to humanism and technology
- theory and methodology of urbanism – relation to social sciences and biotechnology
- theory of planning and technological application in architecture – relation to technology
- thematical modules/emphaseses – related to quality assured, comparable offer from visiting lecturers and other programmes

•	Architectural Theory and Critique – Selected Themes	(Košir / University of Ljubljana, Faculty of Architecture)	5 ECTS
	Analysis and Criticism of Contemporary Architecture	(Čeferin / independent architect)	5 ECTS
	The Origins of Modernity	(Koselj / private researcher)	5 ECTS
	Interpretation of Memory in Architecture	(Zorec / University of Ljubljana, Faculty of Architecture)	5 ECTS
	Meaning in Architecture	(Glažar / University of Ljubljana, Faculty of Architecture)	5 ECTS
	Architectural Analogies	(Ažman Momirski / University of Ljubljana, Faculty of Architecture)	5 ECTS
	Corpus of the Slovene Architecture – Selected Themes	(Fister / University of Ljubljana, Faculty of Architecture)	5 ECTS
	Identity of Slovene Architecture	(Kalčič / University of Ljubljana, Faculty of Architecture)	5 ECTS
	Jože Plečnik – the Modern Classicist	(Krečič / Ljubljana Architecture Museum)	5 ECTS
	Protection and Rehabilitation of Architectural Heritage	(Fister / University of Ljubljana, Faculty of Architecture)	5 ECTS
	Integral Renewal	(Lah / University of Ljubljana, Faculty of Architecture)	5 ECTS
	Interpretation of Architectural Heritage	(Ifko / University of Ljubljana, Faculty of Architecture)	5 ECTS
	Architectural Archetypes of the Sacred	(Debevec / University of Ljubljana, Faculty of Architecture)	5 ECTS
	Architecture of Tourist Buildings	(Leskovec / University of Ljubljana, Faculty of Architecture)	5 ECTS
	Theory of Vernacular Architectural Origins	(Juvanec / University of Ljubljana, Faculty of Architecture)	5 ECTS
	Human Environment Anthropology	(Toš / Sistemprojekt, Zagreb)	5 ECTS
	Architectural Psychology	(Polič / University of Ljubljana, Faculty of Arts)	5 ECTS
	Art History	(Krečič / Ljubljana Architecture Museum)	5 ECTS
••	Systems of Plastic Arrangements	(Bonča / University of Ljubljana, Faculty of Architecture)	5 ECTS
	Architectural Versus Fine Art Relations	(Marolt / University of Ljubljana, Faculty of Architecture)	5 ECTS
	Colours and Space	(Kobe / University of Ljubljana, Faculty of Architecture)	5 ECTS
	Lighting in Architecture and Urban Environment s	(Novljan / University of Ljubljana, Faculty of Architecture)	5 ECTS
	Abstract Spatial Transformations Tools	(Novljan / University of Ljubljana, Faculty of Architecture)	5 ECTS
	Interior and Furniture Design	(Kobe / University of Ljubljana, Faculty of Architecture)	5 ECTS
	Performative Design Strategies	(Kirkegaard / University of Aalborgu, Faculty of Engineering, Science and Medicine)	5 ECTS
	Digital Methods and Presentations in Architecture	(Kalčič / University of Ljubljana, Faculty of Architecture)	5 ECTS
	Designing Virtual Environments	(Bourdakis / University of Thessaly)	5 ECTS
	Digital Design Methods (Achten / Eindhoven University of Technology, Faculty of Architecture, Construction and Spatial Planning, and Technical University of Prague, Faculty of Architecture)		5 ECTS
	Programming of Architectural Forms	(Duarte / Technical University of Lisbon, Faculty of Engineering)	5 ECTS
	Digital Fabrication	(Duarte / Technical University of Lisbon, Faculty of Engineering)	5 ECTS
	Interfaces for Architectural Learning and Collaboration	(Zupančič / University of Ljubljana, Faculty of Architecture)	5 ECTS
	Architectural Publishing	(Martens / Vienna University of Technology, Faculty of Architecture and Regional Planning)	5 ECTS
•••	History of Urbanism	(Košir / University of Ljubljana, Faculty of Architecture)	5 ECTS
	History of Urbanism in Slovenia	(Košir / University of Ljubljana, Faculty of Architecture)	5 ECTS
	Urban Planning	(Čerpes / University of Ljubljana, Faculty of Architecture)	5 ECTS
	Architecture and Sustainable Spatial Development	(Požgančnik / University of Ljubljana, Faculty of Civil Engineering and Geodesy)	5 ECTS
	Sustainable City Development	(Šaček Divjak / Urban Planning Institute of the Republic of Slovenia)	5 ECTS
	Tools for Control of Urban Forms	(Dimitrovska Andrews / Urban Planning Institute of the Republic of Slovenia)	5 ECTS
	Regional Planning	(Černe / University of Ljubljana, Faculty of Arts)	5 ECTS
	Environmental Management for Rural Tourism and Recreation	(Gabrijelčič / University of Ljubljana, Faculty of Architecture)	5 ECTS
	Local Planning & Public Participation	(Voigt / Vienna University of Technology, Faculty of Architecture and Regional Planning)	5 ECTS
	Urban Economics	(Cirman / University of Ljubljana, Faculty of Economics)	5 ECTS
	Real Estate Valuation and Urban Economics	(Marušič / University of Ljubljana, Faculty of Civil Engineering and Geodesy)	5 ECTS
	Sociological Concepts of Modern Urbanism	(Hočevar / University of Ljubljana, Faculty of Social Sciences)	5 ECTS
	Landscape Settlements of Cultural Diversity	(Fikfak / University of Ljubljana, Faculty of Architecture)	5 ECTS
	Protection of Architectural Landscapes	(Deu / University of Ljubljana, Faculty of Architecture)	5 ECTS
	Methods of Ambient Design	(Gabrijelčič / University of Ljubljana, Faculty of Architecture)	5 ECTS
	Sensitive Urban Places	(Zupančič / University of Ljubljana, Faculty of Architecture)	5 ECTS
	Design of Open Space	(Gazvoda / University of Ljubljana, Biotechnical Faculty)	5 ECTS
	Housing Environment Humanization	(Kresal / University of Ljubljana, Faculty of Architecture)	5 ECTS
••••	Architectural Design Theory	(Toš / Sistemprojekt, Zagreb)	5 ECTS
	Integrated Practices and Building Modelling	(Isaković / University of Ljubljana, Faculty of Civil Engineering and Geodesy)	5 ECTS
	High-Tech Architecture	(Miščević / University of Zagreb, Faculty of Architecture)	5 ECTS
	Contemporary Architectural Technology	(Kresal, Zbašnik-Senegačnik / University of Ljubljana, Faculty of Architecture)	5 ECTS
	Mass Customization of Housing	(Duarte / Technical University of Lisbon, Faculty of Engineering)	5 ECTS
	Fire Safety of Built Environment	(Muhic / University of Ljubljana, Faculty of Architecture)	5 ECTS
	Environmental Physics for Architects	(Roset / Catalan Polytechnic University, Superior Technical School of Architecture of Barcelona)	5 ECTS
	Energy and Environment Assessment of Buildings	(Medved / University of Ljubljana, Faculty of Mechanical Engineering)	5 ECTS
	Microclimate of Urban Areas and Buildings	(Medved / University of Ljubljana, Faculty of Mechanical Engineering)	5 ECTS
	Renewable Sources of Energy in Buildings	(Zbašnik-Senegačnik / University of Ljubljana, Faculty of Architecture)	5 ECTS
	Selected Topics in Building and Construction History	(Slivnik / University of Ljubljana, Faculty of Architecture)	5 ECTS
	Structures in Architecture	(Kilar / University of Ljubljana, Faculty of Architecture)	5 ECTS
	Design of Shell Structures	(Brank / University of Ljubljana, Faculty of Civil Engineering and Geodesy)	5 ECTS
	Load-Bearing Conditions	(Kušar / University of Ljubljana, Faculty of Architecture)	5 ECTS
	Basics of Bridge Design	(Isaković / University of Ljubljana, Faculty of Civil Engineering and Geodesy)	5 ECTS
	Earthquake Architecture	(Kilar / University of Ljubljana, Faculty of Architecture)	5 ECTS
•••••	Theories and Methods of Scientific Research	(visiting lecturers)	5 ECTS
	Subjects/Modules of Scientific Research from other programmes	(teachers of subjects from other programmes)	5 ECTS

10.

Data on possibilities regarding optional subjects and mobility

Ratio between compulsory and optional subjects

TABLE

COMPULSORY MODULES/SUBJECTS	14%	OPTIONAL MODULES/SUBJECTS	86%
MODULES/SUBJECTS WITH COMPULSORY CONTENT STRUCTURE 1.1 General module 1.3 Presentation of doctoral study plan 2.2 Presentation of topics of doctoral dissertation 3.1 Presentation before defence and defence of defence of doctoral dissertation	25 ECTS	MODULES/SUBJECTS WITH OPTIONAL CONTENT AND ITS STRUCTURE 1.2 Architectural module 2.1 Interdisciplinary module 1.4 Individual research work 1 2.3 Individual research work 2 3.2 Individual research work 3	155 ECTS

Selection of subjects in modules:

- according to the theme of dissertation;
- in the case the candidate acquired professional qualification in architecture: a minimum of 10 ECTS from the programme offer of other disciplines has to be selected;
- in the case of other professional qualifications: a minimum of 10 ECTS from the programme offered by lecturers – architects has to be selected;
- a maximum of 60 ECTS from other comparable programmes, i.e. of other UL faculties or other universities can be approved;
- the subjects of visiting lecturers are shaped on the yearly basis – the visiting lecturers have to fulfil preset requirements for course coordinators; the syllabus has to be approved by regular validation procedures.

Mobility: Within the Erasmus programme or on the basis of other bilateral agreements of which the signatory is the Faculty of Architecture, the student can make use of the opportunity to study one or two semesters abroad in (and inclusive of) the second year of studies.

11.

The short introduction of subjects

SUBJECTS OF THE GENERAL MODULE – 1.1

Introduction to Scientific Research – Ljubo Lah (10 ECTS)

The characteristics of scientific research work, in particular in the fields of architecture and urban design; assortment of methodological topics, scientific research methods and techniques; science in relation to philosophy, logics, ethics and psychology of creativity; errors in the scientific research work; definition of a relevant research problem, finding and selection and critical application of scientific information in the field of architecture and urbanism; methods: processing and presentation of results, survey and interview, quantitative methods and sampling, characteristics of critical reading, time management skills; processing and presentation of results, preparation of the so-called primary documents.

SUBJECTS OF THE ARCHITECTURAL MODULE – 1.2

Architectural Theory and Critique – Fedja Košir (10 ECTS)

Architectural concept of Antiquity and Renaissance; from Renaissance to functionalism; functionalism and post-functionalism; Slovene atmosphere: a) sacral versus profane aesthetics; b) so-called realism : functionalism : post-modernism; c) minimalistic mask of post-modernism; architectural critique in Slovenia.

Corpus of the Slovene Architecture – Peter Fister (10 ECTS)

New research methods of architectural research in Slovenia with direct connection to the European research projects and integral knowledge of the corpus of Slovene architecture; reestablishment of new forms of interdisciplinary education with connections in Slovene and international environment and direct cooperation in European research projects.

Strategies of Architectural Design – Aleš Vodopivec (10 ECTS)

Modernistic and contemporary strategies of architectural design: form /function; volume/weight; symmetry/regularity; cubism/fourth dimension of space/decoration; free plan layout/space plan; load bearing structure/ tectonics; new materials/narrativity of material; building envelope (façade)/transparency/scenography...

Architectural Research by Design – Vojteh Ravnikar (10 ECTS)

Comprehension of architectural design and architectural practice as a research laboratory; integration of traditional, pragmatic and liberal approaches in the development of architectural methodology; conceptualization of architectural experimental research design based on critical reflections of comparable solutions; possibilities of methodological developments based on architectural experimental design.

Contemporary Approaches to Urbanism – Janez Koželj (10 ECTS)

Introduction: an outlook into globalization processes, neo-liberal conditions, specifics of post-urban space and emerging rights to the city; inefficiency and critical analysis of traditional methods and techniques of urban planning and urban development - the reasons why current urbanism is not able to reflect the needs of post-industrial society; possibilities of computing and informational communication technology; new emerging modes of flexible urbanism: absence of unified theory; operative methods and techniques of processual and pro-active urban planning: light, regulative, operative, consensual, new, loose urbanism and pseudo urbanism; the role of the city governance in response to a changing environment, instruments of equity linkage and innovative modes of urban management.

SUBJECTS OF THE INTERDISCIPLINARY MODULE – 2.1

thematic modules/emphasis – relations (legend of B&W markings – titles, disposition and structure of components is (pre)defined in accordance with the research policy of FA)

- architectural theory and critique, corpus of the Slovene architecture – relation to humanism
- fine-arts and digital theory and methodology – relation to humanism and technology
- theory and methodology of urbanism – relation to social sciences and biotechnology
- theory of planning and technological application in architecture – relation to technology



Architectural Theory and Critique – Selected Themes –

Fedja Košir (5 ECTS)

Selected themes include chapters from: architectural concept of Antiquity and Renaissance, from Renaissance to functionalism, functionalism and post-functionalism, Slovene theoretical chapters: a) sacral versus profane aesthetics; b) so-realism: functionalism: post-modernism; c) minimalistic mask of post-modernism; architectural critique in Slovenia.

Analysis and Criticism of Contemporary Architecture –

Petra Čeferin (5 ECTS)

Introductory overview of the contemporary architectural production: populism, rationalism, structuralism, productivism, post-modernism, Neo-Avantgarde, critical regionalism, reflective practices, sustainable architecture. The significance and role of the media in contemporary architecture. The significance of the intertwining of architectural production as building and design, and the “less material” production of architecture in the media. Conditions of the emergence of contemporary architecture. The ways of engagement of architectural production/architecture with the economic, political and cultural contexts in which it works/is made: architecture as an integral part of social reality vs. architecture as a transformation of architectural and social reality; the possibilities, conditions, structure of architectural invention in the contemporary production of architecture and the realms of its operation.

The Origins of Modernity – Nataša Koselj (5 ECTS)

The dialectic of the development, the origins and concepts of the Modernity through comparative analysis of the theory, individual works of art, their authors and the influences of the space and time of their origin; definition of Modernity, period, origins; the use of the term Modern; space, time and the essence of the creative process.

Interpretation of Memory in Architecture – Maruša Zorec (5 ECTS)

Review of the methods of studying architectural history, overview of the approaches and ways of interpretation of memory in architecture; architecture that joins old and new, overview of the historical examples, research of the concepts; development of the new concepts of interpretation of the memory in architecture; development of the new concepts in the relationship of old and new in architecture.

Meaning in Architecture – Tadej Glažar (5 ECTS)

Origins and purpose of meaning in architectural environment; significance of architectural environment; power of meaning, messages; historical development and the role of architectural expression through developing architectural practice (questions on monumentality ...); potentials of architectural expression in modern practice.

Architectural Analogies – Lučka Ažman Momirski (5 ECTS)

Basic terminology; comparisons of architecture and town planning with other disciplines; applicability of methods in studying the subject; interpretations during familiarization with content; simultaneous or alternate studying of two or more contents in order to identify common characteristics or differences.

Corpus of the Slovene Architecture – Selected Themes –

Peter Fister (5 ECTS)

Selected themes include chapters from: new research-methods of architecture in Slovenia with direct connection to the European research-projects and integral knowledge of the corpus of Slovene architecture; formation of new forms of interdisciplinary education with the connections within Slovenian and international environment as well as direct cooperation in European research projects.

Identity of Slovene Architecture – Igor Kalčič (5 ECTS)

Methods and ways of recognizing entities of Slovenian architecture that define and determine the unique Slovenian architecture; analysis and proving of uniqueness; absolute and relative identity of architectural objects; difference in solutions with comparisons and analysis of architectural elements; origins of difference of Slovene architecture to other world architectures.

Jože Plečnik – The Modern Classicist – Peter Krečič (5 ECTS)

History of the in genuine Slovenian art theories (Izidor Čankar – The System of the Style; France Stele – The Art Geography; Nace Šumi – The Regional Constants); the problem of the reduced historicism; the genuine combination of the historical and modern architectural language.

Protection and Rehabilitation of Architectural Heritage –

Peter Fister (5 ECTS)

The education about protection and rehabilitation of cultural heritage is connected to the actual changes and experiences of special architectural method and theory with accentuation on Slovene-specific problems and on professionally and scientifically latest achievements and methods of tackling such problems.

Integral Renewal – Ljubo Lah (5 ECTS)

The understanding of fundamental concepts in the field of integral preservation of architectural heritage, familiarization with the interpretations of international data-bases and documents forming the doctrine of integral preservation in the context of sustainable development; theoretical, methodological, legal and value based point of view; selected topics: creativity and renovation, renovation of a town / town section / rural area / settlement, renovation/rehabilitation of buildings, management and cultural heritage, feasibility studies, instruments and mechanisms of spatial planning, planning of adjusted and adapted use of structures in space, preservation of authenticity, conservation interventions, methods and concepts in planning renovation interventions, interdisciplinary and team nature of work.

Interpretation of Architectural Heritage – Sonja Ifko (5 ECTS)

The role of heritage in modern society: identification of cultural identity, space development potential and economic developer; description of characteristic development of heritage protection and the history of presentation methods and techniques; theory and philosophy of protection of natural and cultural heritage: presentation of different categories of architectural heritage, basics of museumological theory and different protection approaches; presentation of heritage and actual trends; inclusion of heritage protection in development programs.

Architectural Archetypes of the Sacred – Leon Debevec (5 ECTS)

Characteristics of the relationship between place and cult; forming layers on the archetypes of the sacred; »wrapping« method; sanctuaries of ancient religions (Egypt, Ancient Greece, Roman Empire); Christian sanctuaries (The Early Christian age, The Middle-age, Baroque, Second Vatican council); parallel spatial developments of other religions.

Architecture of Tourist Buildings – Boris Leskovec (5 ECTS)

Psychology of leisure time and tourism and its influence on architecture. Development of typology around the world and domestically. Designing and functional typology characteristics. Theoretical starting points and real-life examples. Methodical background needed to achieve higher quality of tourist building architecture, while taking into account the global trends on one hand and elements of its identity and typical architecture on the other hand in the sense of understanding of the so-called "critical regionalism".

Theory of Vernacular Architectural Origins – Borut Juvanec (5 ECTS)

Between techniques, technology, usability, anthropology, ergonomics and aesthetics in architecture: origins of primeval architecture, interrelation of architectural theory and theory of origins, definition of origins; development principles; primeval architecture, scientific research methods for definition of the essence of vernacular architecture and its contemporary conceptual interpretation.

Human Environment Anthropology – Igor Toš (5 ECTS)

Interaction, interdependence and co-evolution of human being and the anthropogenous material and spatial environment. Human being as an „animal symbolism“, a biophysical and symbolical being. Human environment as a biophysical and symbolical milieu. Main concepts in semiotic and information theory. Origins of architecture and origins of city/anthropogenic landscape. Notions of contemporaneity. Interdisciplinary structure of architectural anthropology. Methodology of interdisciplinary research, foundations of systems methodology.

Architectural Psychology – Marko Polič (5 ECTS)

Introduction: definition of the domain of architectural psychology; sensual effects; social processes and environment; recognition of the environment; environment problems in settlements; accidents; psychology and planning; specifics of behaviour and experiencing in some special environments; environment for everyone.

Art History – Peter Krečič (5 ECTS)

Art history and history of cultural formations through the prism of architecture and its theory; selected art history topics from different historical periods; theory of art, architectural theories; theories of avant-garde and modernism.



Systems of Plastic Arrangements – Jaka Bonča (5 ECTS)

Designing composition or a system that is based on the grid or on other forms of repetition. Systems as mathematical isometric projections: mirroring, vortex, repetition etc; the meaning of dimensions, modules, scales, ratios and proportions.

Architectural Versus Fine Art Relations – Peter Marolt (5 ECTS)

Designing architectural space and spatial forms regarding different levels that art and architecture depend on; communication and communication with spatial entity through spatial dialogue; combination of different media and different kinds of visual arts; the framework for new forms of residence (being, existence); confrontation with the relation between form and the product of the society: knowledge/understanding, order/chaos, revolution/evolution, architecture/sculpture, etc.

Colours and Space – Jurij Kobe (5 ECTS)

Detailed overview of approaches and methods for colour design; colour design as a reflection of other professions from the perspective of the methods dealt with; professional profile as a starting point of possible methodological contributions; proposal of methodological developments.

Lighting in Architecture and Urban Environments – Tomaž Novljan (5 ECTS)

Physical properties of the light; the natural light; shade, shadow, refraction, absorption; the lighting with electrical powered sources; essential differences between indoor and outdoor lighting; the comparison between the designed/simulated and measured/achieved photometric quantities; quality and quantity of light; light and the perception of the space; light as the bearer of information; dynamic lighting as a substitution for natural lighting; sustainable lighting design; light pollution; lighting in virtual space; the role of a lighting designer in a building process.

Abstract Spatial Transformations Tools – Tomaž Novljan (5 ECTS)

Spatial perception; notions: space, abstraction, transformation; their application in the creative process; the chaos theory and self-similarity; basic conception of fractal theory and fractal geometry; application in the design process; ambient design in aggressive environments, habitats without direct connection to aboveground space; adaptation of principles and shaping the perception of natural-like effects into the confined spaces; colour, pattern, light.

Interior and Furniture Design – Jurij Kobe (5 ECTS)

Detailed overview of composition and design methods of mobile and fixed interior equipment, interior composition and design and placing of street equipment in the urban environment; interior/furniture design and understanding of used methods through a reflection of other field of professions; professional profile as a starting point of possible methodological contributions; proposal of methodological developments.

Performative Design Strategies – Poul Henning Kirkegaard (5 ECTS)

A selection of recent projects by designers that use smart materials and systems; research of these works in and preparation for introduction of one own design propositions for a responsive environment; the produced works will draw upon the differing skills of the participants and should range from products and installations, to buildings, cities and landscapes.

Digital Methods and Presentations in Architecture – Igor Kalčič (5 ECTS)

Logical and effective use of digital multimedia through the whole planning/building process; methods, software and hardware needed for efficient work; web based technologies, multimedia databases in the field of architecture and tools that enable successful integration of work and communication across world wide web.

Designing Virtual Environments – Vassilis Bourdakis (5 ECTS)

Cyberspace, Virtual Reality, scope of application of synthetic environments, synthetic environments design principles, design tools.

Digital Design Methods – Henri Achten (5 ECTS)

Into the minds of designers - how designers think; the science of the artificial; digital methods of design; developments in digital design methodology.

Programming of Architectural Forms – José Pinto Duarte (5 ECTS)

The theoretical and practical fundamentals for the exploration of the computational aspects or architectural knowledge and form.; the basic paradigms for developing generative systems including parametric design, shape grammars, cellular automata, etc and the basic programming constructs such as symbolic expressions, control structures, cyclic functions, data structures, etc; the basics of the scripting language and the required support for development of the exercises/projects.

Digital Fabrication – José Pinto Duarte (5 ECTS)

The basics of advanced geometric modelling, computer aided manufacturing virtual reality and remote collaboration; the use of CAD/CAM tools and processes, namely, subtractive, additive, cutting, and forming processes; solving of complex problems, i.e. in collaboration with the industry; mass customization of housing, the design and production of complex forms etc.

Interfaces for Architectural Learning and Collaboration –

Tadeja Zupančič (5 ECTS)

Levels of architectural awareness among different publics; problems of visual communication between professional and general public; blended professional and life-long architectural learning; tools for general and professional architectural learning, for interdisciplinary architectural and urban design collaboration and public participation.

Architectural Publishing – Bob Martens (5 ECTS)

Introduction to (digital) library resources; types of scientific publications; submission, review and dissemination; detailed review of scientific book publications; detailed review of relevant references; impact analysis; ontology.



History of Urbanism – Fedja Košir (5 ECTS)

Basic notions and the genesis of (spatial) elements. Consistent city: Orient and America; classical antiquity. Post-antiquity (feudal): return of organic structures. Renaissance: ideal city. The rational 'Georgette' city. The modern 'tartan city', 19th and 20th century. Feudal cities in Slovenia. From feudal to the functionalistic city. Contemporary Slovene urban structures.

History of Urbanism in Slovenia – Fedja Košir (5 ECTS)

Introduction: characteristics of the space of Slovenian settlement. Archaeological heritage from the Neolithic till the demise of Classical Antiquity. Regionalization issues (and standard national fetishes). Feudal cities and markets in Slovenia. From the feudal to the modern tissue. Maks Fabiani. The thirties and the influx of functionalistic attitudes (1930-1940). Traditionalism strikes back: *Architectura Perennis* (1941). The meager and short phase of Socrealism (1945-1950). Return to CIAM Modernism (1950-1965). Structuralistic phase of Functionalism (1965-1980). Alternative bureaucratic quasi-planning and Ecosocialism. Post-modern critique of functionalistic dogmas (1980-2000). Digitalia 'pro futuro'. Summary: urban concepts of the 20th century.

Urban Planning – Ilka Čerpes (5 ECTS)

Overview of contemporary urban planning theories, sustainable development of the cities, detection and evaluation of the urban development problems, balancing of different development interests, processing of information for the purpose of planning, land use setting and organization, infrastructural network, network of built and un-built space patterns, strategies for generation of built forms.

Architecture and Sustainable Spatial Development –

Andrej Pogačnik (5 ECTS)

Architecture as a component of sustainable development of cities, rural areas and landscapes. Research of attractions, environmental carrying capacity and vulnerability of space. Theories of local accessibility analysis, economic justification and social acceptability. Models of plot development, urban and regional scenarios, simulations and games; behavioural, public-opinion, situational and other research. Visual – morphological research of building placement. Architecture and systems: transport, energy-communal systems, agricultural/forest systems, 'green belt' systems. Architecture as a component of land use on municipality, regional and state level. Regionally and state wide important buildings (DLN). Architecture and aspects of sustainable development (ESDP, CEMAT, HABITAT etc). Discussion.

Sustainable City Development – Mojca Šašek Divjak (5 ECTS)

The definition of sustainable city development (by different authors), parameters and indicators of sustainable city development, comparison of different city models and urban patterns, the decentralized concentration model of settlement in different levels (region, city, quarter, community), good practices of sustainable cities, quarters, communities.

Tools for Control of Urban Forms – Kaliopa Dimitrovska Andrews (5 ECTS)

Town planning in modern planning systems. Aesthetic issues in town development. Methods for evaluation and stimulation of quality of urban design and economical sustainability of projects related to town development. Design measures for planning of town and other settlements: classification and their influence on the development of physical structures.

Regional Planning – Andrej Černe (5 ECTS)

Regional aspects of development; regional problems; development trends and development opportunities; determination of regional development potentials; structure, functions and development of regions; inter- and intra-regional disparities; indicators and criteria as an instrument in regional planning and decision making, the concept of region; spatial division of areas; types of regions.

Environmental Management for Rural Tourism and Recreation – Peter Gabrijelčič (5 ECTS)

Environmental ethics; psychological and sociological aspects of the environment ; environmental economics: considering the supply and demand, considering the costs and benefits; the role of contractors and management of supporting civil/infrastructure services on the user's quality of life; the quality of ambience related to physical, mental and social health; the theory of active rest.

Local Planning and Public Participation – Andreas Voigt (5 ECTS)

'Local planning' and 'public participation'. Fundamentals of system theory, simulation theory and communication theory related to planning theory. Planning processes – dealing with public issues various public and private actors; dealing with problems, complexity and various levels of detail. Advantages of various planning approaches. Bottom-up procedures in planning and methods of public participation, 'best practice' examples.

Urban Economics – Andreja Cirman (5 ECTS)

Introduction to real estate markets. Microeconomic analysis of property markets; Macroeconomic analysis of property markets; economic growth and metropolitan real estate markets; The impact of local governments on real estate markets: local government, property taxes, and real estate markets; public goods, externalities, and development regulation.

Real Estate Valuation and Urban Economics – Damjan Marušič (5 ECTS)

The basic conceptions and methods of real property valuation. Identification of the subject of valuation, defining the value, defining the price of the real estate; the behaviour of the real estate market, modelling and simulation techniques and methods for evaluation; mathematical simulations and computer tools; the influence of space development on real estate value; (economic) parameters which influence the development and preservation of architectural solutions and of space in time; predictability and durability of space development from the point of view of the real estate market and urban economics.

Sociological Concepts of Modern Urbanism – Marjan Hočevar (5 ECTS)

Transformation of the cities at intertwining processes of globalization and localization ('glocalization'). The cities as reflective choice for an increasing number of actors. The instrumental significance of spatial practices and the increase role of the reflective practices linked to lifestyles. Intertwining of non-residential spatial practices and spectacle functions in redefinition of postulates of classical urbanism.

Landscape Settlements of Cultural Diversity – Alenka Fikfak (5 ECTS)

Theoretical and historical basis for understanding forms and spaces. Basic notions (perceptual, experimental and living space); living culture, defining people needs; contemporary global social and economic changes. Designing living units, meaning of individual space as a basis of living units forming (light, communication and function). Elements of buildings in the meaning of sensing/experiencing, imagination of space; examples of contemporary organized building in country side; new forms, experimental models, etc.

Protection of Architectural Landscapes – Živa Deu (5 ECTS)

International documents about the protection of built environment. Architectural policy for sustainable Europe of diverse regions. The role of significance of the built environment, as an element which contributes to regional diversity. Architectural landscapes and regions of Slovenia. Methods which help to identify quality values and measures of the built environment in an architectural landscape as the prerequisite for quality refurbishment and new designs. Examples of good practice. Discussion on the methods used (architectural, art-historical, ethnological, social).

Methods of Ambient Design – Peter Gabrijelčič (5 ECTS)

Mechanisms of spatial perception and sensual formation of human living environment through several perception levels and different perception media. The concept of ambient (material and physical and emotional, intellectual, symbol). Systems of values generated in different historical periods and profession doctrines. Perception of micro-ambients. Perception on the macro-ambiental level. The multi-level experience of traditional town: ambient as realistic geometry, ambient as psychological challenge, ambient as recognizable form and ambient as cultural phenomena. Contemporary theory of perception (the generic city). New aesthetics of space based on individuality and diversity. Interdependence of aesthetics with particular social context and its system of values.

Sensitive Urban Places – Tadeja Zupančič (5 ECTS)

Detailed review of architectural and urban research/design methods and the design of micro urban and architectural places in the city. Architecture as a reflection of other professions from the perspective of the methods dealt with. Professional profile as a starting point of possible methodological contributions. Proposal of methodological developments.

Design of Open Space – Davorin Gazvoda (5 ECTS)

Reasons for existence and typology of the objects of garden art. Transition of garden art in more complex design of open space. Built and green open space. Modern landscape design. Generation of landscape forms. Interdependence of architectural and landscape design. Inclusion of sociological, psychological and landscape-ecological issues in design of city open space. New paradigms in design of open space. Critical overview of recent design achievements in the field of open space design.

Housing Environment Humanization – Janez Kresal (5 ECTS)

Elements of humanization, phenomenology of the elements of humanization, applying method on certain project, method reflections and looking for new models.



Architectural Design Theory – Igor Toš (5 ECTS)

Design as an inter-subject, interdisciplinary, multi-phase and creative process of preparations for the intervention in environment. Factors that influence architecture. Subjects in architectural processes. Design as communication, agreement, coordination and integration of contributions. The role of an architect. Aspects, types and phases of design process. The role of regulations and norms. Design as a problem solving, decision making, as a creative process. Basic concepts in psychology of creativity. Foundations of design methodology and technology, basic general and specific methods and techniques, comparison of methods. Systems methods in design and the problem of specialization. Relation between standpoints and methods, theories and practice. Problem of goal, resource and solution assessment. Value systems and criteria. Ethics and aesthetics in design.

Integrated Practices and Building Modelling – Tatjana Isaković (5 ECTS)

Approaches to integrated practices: knowledge of project life-cycle. Integrated practices and project knowledge management, the systems thinking approach fundamentals and applications. The project system: environments, elements and relationships, the scope of projects and the role of design teams. Project and teamwork system analyses methodologies, technological, organizational and process analyses for collaborative practices. Team forming, collaborative work and communication. Digital project and optimization of collaborative practices. Integrated practices with building information modelling. Designed-built best practices, documentation, archiving and re-use. Management of design teams, CAD management and small groups.

High-Tech Architecture – Ljubomir Mišević (5 ECTS)

Contemporary building materials, systems and structures in architectural design and construction of high-tech architecture. Continuous development of architectural discourse and construction technologies through increasing world of discoveries, their application and monitoring, which pose new challenges to creativity. The obligation of architects in pursuing and adopting the high-tech technology in architectural practice.

Selected themes: eco-tech, bioclimatic high-tech, extreme architecture, virtual high-tech.

Contemporary Architectural Technology –

Janez Kresal, Martina Zbašnik-Senegačnik (5 ECTS)

Subject is divided into following components: contemporary architectural technologies, building materials selection criteria, ecological building materials: natural, local, recycled, renewable, low energy, hydro- and thermo insulating, smart building materials; nano building materials and techno textiles.

Mass Customization of Housing – José Pinto Duarte (5 ECTS)

General production paradigms: handcrafted, mass production, lean production, mass customization. Approaches to mass housing: 19th century and beginning of the 20th century, the period between the Two World Wars, Post-World War II, from the 1960s to today. Prefabrication systems: light and heavy prefabrication; linear, planar and volumetric systems. Design systems: classical, Durand, Le Corbusier, Gropius, Fuller, Wright, Habraken's Theory and other recent approaches. Use of computer aided and building technologies for designing user adapted mass production that give mass produced objects the qualities of individually designed objects.

Fire Safety of Built Environment – Alojz Muhič (5 ECTS)

While planning architects have to take safety of people, assets, building itself and its surroundings into the account. The planners have to respect legislation as well. The course thus introduces three components of safety problematics: safety against fires - causes of fires and explosions, system of safety measures for prevention of fires, for restraint of spreading of fires, for evacuation and rescuing of people and assets and for intervention of firemen, firefighting devices, etc; safety at work - causes of danger, technology, measures behind expedition and reduction of danger such as: physical (falls, explosions, hits, vibrations, noise, hot blow, light blow, electric blow, etc), chemical (smoke, poisonous and pungent substances, etc.) biological or any other; safety against pollution - causes of pollution of air, waters and lands, measures for expedition of danger of environment pollution of, water treatment plants.

Environmental Physics for Architects – Jaume Roset (5 ECTS)

Studies in the field of environmental physics; thermal aspects; acoustics; lighting; 'architectural combinations' of thermal, acoustics and lighting from the environmental physics perspective.

Energy and Environment Assessment of Buildings – Sašo Medved (5 ECTS)

Environment related problems caused by construction and utilization of contemporary buildings and settlements due to the materials and energy demand; environmental spheres, natural processes in environmental spheres and their change through anthropogenic sources of pollution; importance of rational use of materials and energy in buildings and principles and technologies for energy supply based on dissipate and district energy systems; analytical and numerical methods for energy and environment assessments of buildings are introduced; methods for technology and economy based feasibility studies of buildings related environment protection technologies.

Microclimate of Urban Areas and Buildings – Sašo Medved (5 ECTS)

Modelling of energy and mass flows in the urban environment, sensible and latent heat storage in built environments and nature, microclimatic balance in urban environment, flows ratio and transfer of pollutants in urban environment, mechanisms of heat transfer, discreet and gradual heat transfer through homogenous and inhomogeneous built structures, discreet and gradual water and humidity transfer through homogenous and inhomogeneous built structures, transfer of heat through transparent envelopments of buildings, heat-loss, modelling and evaluation of joints, transfer of sun radiation and sunlight in buildings (modelling), heat storage in built structures, adaptive models of living thermal comfort, thermal response of buildings, planning of interior living environment and energy use based on the thermal response of buildings.

Renewable Sources of Energy in Buildings –

Martina Zbašnik-Senegačnik (5 ECTS)

Parameters of living comfort, building technologies of passive and low-energy houses, the components of passive and low-energy houses (a thermal insulation, windows and doors, the systems of warming and ventilation, sun protection, etc), the ecological passive houses (houses made from natural materials: straw, clay, earth, etc), big passive houses (offices, schools and kindergartens, mountain huts, factories, etc), the building renovation in passive house technology (thermal insulation, thermal bridges, ventilation, warming, etc), the newest technologies (activation of concrete mass, cooling and warming in the wall, etc).

Selected Topics in Building and Construction History – Lara Slivnik (5 ECTS)

The course offers a critical examination of the transformations in architectural and constructional history: Crystal Palace, Palais des Machines, Le Corbusier's pavilion L'Esprit Nouveau, Mies's Barcelona Pavilion, etc and more recent from Hannover EXPO 2000 to Shanghai EXPO 2010.

Structures in Architecture – Vojko Kilar (5 ECTS)

The course is oriented toward the preliminary design and analysis of structures. Main teaching topics include: computer models, loading, materials and simulations of structural behaviour with computer programs. Basic knowledge on selected programs for static analysis and basic information on structural modelling are given. Special attention is given to the communication between 3D architectural models and structural mathematical models. The course is also supported with prepared computer simulations of structural behaviour which enable a more direct connection with engineering component of the course.

Design of Shell Structures – Boštjan Brank (5 ECTS)

The course covers the following types of shell structures: light reinforced concrete shell, shell made of composite laminates, a system of metal or timber beams that has a curved shape and prestressed textile membrane structures. An emphasis is given on characteristics of shells structures, which are light, slender, curved and aesthetically pleasing constructions over larger spans. The production/building of shells as thin shells out of reinforced concrete is covered. The course also deals with the arrays of linear elements that form the shell and prestressed membranes, as well as problems of shells and problem solving. The basic question thus revolves around: How to find such a shape that is aesthetic on one hand and stable for the design loads on other hand?

Load-Bearing Conditions – Jože Kušar (5 ECTS)

The optimal dimensions of structural element depend on loading conditions or their combination that will with certain probability occur in its operating life. It is important that we establish a damage contribution of each such condition state which contributes to the growing damage of the critical cross section. These damage contributions can be determined from numerous parameters such as strength, resistance and durability of the material used to fabricate the structural element. The parameters related to strength, resistance and durability of the material can be determined for every material, section shape form or static system. In this way the characteristic values of all parameters are obtained.

Basics of Bridge Design – Tatjana Isaković (5 ECTS)

The main topics of the course are conceptual design, analysis and basic procedures for estimation of the dimensions of structural elements. Students will obtain the knowledge about computer based modelling of bridges, including modelling of different materials, loads and different groups of structural elements. He or she will obtain the knowledge about the computer software, which is intended for the analysis and design of bridges. The special attention will be devoted to the proper modelling. Proper procedures for estimation of the bridge strength will be considered, too. The course is supported with computer simulations of structural response. Lectures will be combined with project base and problem oriented work.

Earthquake Architecture – Vojko Kilar (5 ECTS)

In the first part the students get basic insight in the earthquake engineering field and actual philosophy of building design in earthquake prone areas. We describe the phenomena of earthquake loading as well as the importance of conceptual building design for actual behaviour of building during an earthquake. The second part is focused to architecture of earthquake resistant structures and analysis of existing or empirical mechanisms to achieve adequate horizontal stiffness of buildings. A special attention is given to the architectural identity of specific cultural region that can be accessed thru earthquake resistant building concept. The symbolic or metaphoric response of architect to earthquakes is also presented. The third part combines the first two parts and looks for a synergy between the earthquake engineering and architecture.

DOCTORAL PROGRAMME IN
ARCHITECTURE

UNIVERSITY OF LJUBLJANA, FACULTY OF ARCHITECTURE

SYLLABUSES ACCORDING TO LEARNING UNITS

1.				
Course title:	Introduction to Scientific Research			
Course coordinator:	doc. dr. Ljubo Lah			
Lecturers:	doc. dr. Ljubo Lah			
No. of hours: 250	Lectures: 15	Seminar:	Lab. work:	Other: 235
ECTS:	10			

2.	
Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved outline of the doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement

3.	
Objectives of the course and intended learning outcomes (competences):	<p>The student (researcher-beginner):</p> <ul style="list-style-type: none"> • knows and understands the characteristics of scientific research • masters the basic research methodology • is able to select and define a relevant research problem • is able to find and critically apply scientific information to clarify the problem under elaboration • knows how to plan and execute the research and appropriately interpret the findings • is able to draw up the primary document, i.e. a research paper, diploma work, master's degree work or dissertation

4.	
Contents (Syllabus outline):	<p>The subject provides answers for the set educational objectives: defines the characteristics of scientific research work, in particular in the fields of architecture and urban design.</p> <ul style="list-style-type: none"> • Assortment of methodological topics: scientific research methods and techniques, science in relation to philosophy, logics, ethics and psychology of creativity, errors in the scientific research work, processing and presentation of results, survey and interview, quantitative methods and sampling, characteristics of critical reading, time management skills.

general module

5. Literature:	<ul style="list-style-type: none">• Barrass, R., 2002: Scientist must write: a guide to better writing for scientists, engineers and students. Routledge, London, New York.• Kališnik, M., Fister, P., Lah, L., Dekleva Smrekar, D., 2003: Uvod v znanstvenoraziskovalno metodologijo na področju arhitekture in urbanizma. Fakulteta za arhitekturo, Ljubljana.• McCarthy, S.: How to write a competitive proposal for framework 6 : a research manager's handbook. Watergrasshill, Hyperion, 2003.• Mounsey, C., 2002: Essays and dissertations. University Press, Oxford.• Seely, J., 2002: Writing reports. University Press, Oxford.
6. Teaching methods:	Combination of contemporary didactic methods, from lectures to individual study-presentations and e-learning options; round tables with invited guests; workshops with case studies; organized together with other elective courses, or, upon the candidate's agreement; individual consultancy.
7. Assessment methods:	<ul style="list-style-type: none">• evaluation of seminar work and finalisation of individual doctoral study plan, its presentation, active participation in discussions, evaluation done by invited reviewers / alternative: final written exam• no further subdivision of credits is envisaged• grading scale: pos. (6-10), neg. (1-5)
8. References (3-5):	<ul style="list-style-type: none">• Kališnik, Miroslav, Fister, Peter, Lah, Ljubo, Dekleva Smrekar, Doris, 2003: Uvod v znanstvenoraziskovalno metodologijo na področju arhitekture in urbanizma. Ljubljana : Fakulteta za arhitekturo, ISBN : 961-6160-42-7.• Kališnik, Miroslav, Lah, Ljubo, 1998: Navodila za izdelavo magistrskega dela ali doktorske disertacije. V: Uvod v znanstvenoraziskovalno metodologijo, Ljubljana, Fakulteta za arhitekturo,- ISBN 961-6160-04-4. - Str. 41-44.• Kališnik, Miroslav, Lah, Ljubo, 1998: Kako oblikujemo primarni dokument? V: Uvod v znanstvenoraziskovalno metodologijo. Ljubljana, Fakulteta za arhitekturo- ISBN 961-6160-04-4. - Str. 27-38.

1. Course title:	Architectural Theory and Critique			
Course coordinator:	prof. dr. Fedja Košir			
Lecturers:	prof. dr. Fedja Košir			
No. of hours: 250	Lectures: 15	Seminar:	Lab. work:	Other: 235
ECTS:	10			

2. Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved outline of the doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<ul style="list-style-type: none"> • a knowledge and understanding of problems related to architectural theory and their development: terminology, metrology phenomenology, theory of composition and theory of presentation • an ability to create a critical distance – an ability of evaluation of values system development and its quality assessment
4. Contents (Syllabus outline):	<ul style="list-style-type: none"> • architectural concept of Antiquity and Renaissance • from Renaissance to functionalism • functionalism and post-functionalism • Slovene atmosphere: a) sacral versus profane aesthetics; b) so-realism : functionalism : post-modernism; c) minimalistic mask of post-modernism • architectural critique in Slovenia
5. Literature:	<ul style="list-style-type: none"> • KOŠIR, Fedja. <i>K arhitekturi</i>. Ljubljana: Fakulteta za arhitekturo, 2006-2007. Zv. <1-3>, ilustr. ISBN 961-6160-64-8. ISBN 978-961-6160-64-3.

architectural module

6. Teaching methods:	Combination of contemporary didactic methods, from lectures to individual study-presentations; round tables.
7. Assessment methods:	<ul style="list-style-type: none">• evaluation of (three) discussion contributions,• no further subdivision of credits is envisaged,• grading scale: pos. (6–10), neg. (1–5).
8. References (3-5):	<ul style="list-style-type: none">• KOŠIR, Fedja. Slovenska šola za arhitekturo v mednarodnih teoretskih tokovih. Piranesi, Autumn 1998, let. 5, št. 7/8, str. 78-85, ilustr.• KOŠIR, Fedja. Vrednote : metode in merila. Urbani izziv, december 1991, št. 18, str. 29-32.• KOŠIR, Fedja. Der theoretische und kritische Architekturdiskurs in Slowenien : neun aktuelle Varianten = Theories and critical discourse in Slovenian architecture : nine variations. V: HELLMAYR, Nikolaus (ur.). Satzbau : Architektur - Theorie - Kritik : architecture - theory - criticism, (HdA, H. 1). Graz: Haus der Architektur, [1994], str. 98-103.• KOŠIR, Fedja. K arhitekturi. Ljubljana: Fakulteta za arhitekturo, 2006-2007. Zv. <1-3>, ilustr. ISBN 961-6160-64-8. ISBN 978-961-6160-64-3.• KOŠIR, Fedja, KREČIČ, Peter, ZUPANČIČ, Bogo. Le Corbusier, 1887-1965 : ob stodvajsetletnici arhitektovega rojstva. V Ljubljani: Fakulteta za arhitekturo: Arhitekturni muzej, 2007. 121 str., ilustr. ISBN 978-961-6160-77-3.

1. Course title:	Corpus of the Slovene Architecture			
Course coordinator:	prof. dr. Peter Fister			
Lecturers:	prof. dr. Peter Fister			
No. of hours: 250	Lectures: 15	Seminar:	Lab. work:	Other: 235
ECTS:	10			

2. Prerequisites:	<ul style="list-style-type: none"> for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved outline of the doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	Qualification for documenting, analyzing and evaluation of special architectural heritage in Slovenia (and elsewhere), which is important as cultural heritage, as identity- structure of good living environment, and as the material basis for sustainable, ecological and economical development.
4. Contents (Syllabus outline):	<ul style="list-style-type: none"> new research-methods of architectural research in Slovenia with direct connection to the European research-projects and integral knowledge of the corpus of Slovene architecture reestablishment of new forms of interdisciplinary education with connections in Slovene and international environment an direct cooperation in European research projects
5. Literature:	<ul style="list-style-type: none"> specific literature connected to all selected themes (see: references)
6. Teaching methods:	Lectures, discussions, individually elaborated theme with individual consultations.

architectural module

7.	Assessment methods:	<ul style="list-style-type: none">• individually selected and elaborated theme and its presentation in form of discussion,• no further subdivision of credits is envisaged,• grading scale: pos. (6–10), neg. (1–5).
8.	References (3-5):	<ul style="list-style-type: none">• FISTER, Peter. <i>Umetnost stavbarstva na Slovenskem</i>. Ljubljana: Cankarjeva založba, 1986. 439 str., ilustr.• FISTER, Peter, BOH-PEČNIK, Nuša, DEU, Živa, LAH, Ljubo. <i>Glosar arhitekturne tipologije</i>, (Prostor, Arhitekturna identiteta, Poselitev, 1). Ljubljana: Ministrstvo za okolje in prostor Republike Slovenije, Zavod Republike Slovenije za prostorsko planiranje, 1993. 144 str., ilustr. ISBN 961-90033-0-6.• FISTER, Peter, BOH-PEČNIK, Nuša, DEBEVEC, Leon, DEU, Živa, KAVČIČ, Mateja, LAH, Ljubo. <i>Arhitekturne krajine in regije Slovenije</i>, (Prostor, Arhitekturna identiteta, Poselitev, 2). Ljubljana: Ministrstvo za okolje in prostor Republike Slovenije, Zavod Republike Slovenije za prostorsko planiranje, 1993. 245 str., [1] zganj. zvd., ilustr., zvd. ISBN 961-90033-1-4.• FISTER, Peter. Korpus slovenske arhitekture = Corpus of the Slovene architecture. <i>AR, Arhit. razisk. (Tisk. izd.)</i>. [Tiskana izd.], 2001, [Št.] 1, str. 11-13, ilustr.• FISTER, Peter. <i>Reurbanizacija/prenova naselbin in arhitekture : (metodologija načrtovanja) = Reurbanisation of architecture and urban structures : (planning methodology)</i>. Ljubljana: Fakulteta za arhitekturo, 2007. ISBN 978-961-6160-69-8.

1.				
Course title:	Strategies of Architectural Design			
Course coordinator:	prof. dr. Aleš Vodopivec			
Lecturers:	prof. dr. Aleš Vodopivec			
No. of hours: 250	Lectures: 15	Seminar:	Lab. work:	Other: 235
ECTS:	10			

2.	
Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved outline of the doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement • architectural professional profile
3.	
Objectives of the course and intended learning outcomes (competences):	In-depth knowledge and use of modernistic and contemporary mechanisms, methods, paradigms and design elements of architectural design.
4.	
Contents (Syllabus outline):	Modernistic and contemporary strategies of architectural design: form/function; volume/weight; symmetry/regularity; cubism/fourth dimension of space/decoration; free plan layout/space plan; load bearing structure/tectonics; new materials/narrativity of material; building envelope (façade)/transparency/scenography...
5.	
Literature:	<ul style="list-style-type: none"> • Moneo, Rafael: Theoretical Anxiety and Design Strategies, MIT Press, 2004. • Colquhoun, Alan: Modern Architecture, Oxford Univ. Press, 2002. • Fry, Tony: New Design Philosophy, UNSW Press, 1999. • Heynen, Hilde: Architecture and Modernity, MIT Press, 1999. • Frampton, Kenneth: Studies in Tectonic Culture, MIT Press, 1995. • Risselada, Max (ur.): Raumplan versus Plan Libre, Delft Univ. Press, 1988. • Hitchcock&Johnson: The International Style (1932), various editions. • Forty, Adrian: Words and Buildings, Thames&Hudson, 2000. • selected literature will be given for every treated theme.

architectural module

6.	Teaching methods:	Lectures, organised discussions, individual work with consultancy.
7.	Assessment methods:	<ul style="list-style-type: none">• evaluation of individual seminar work, its presentation and discussion,• no further subdivision of credits is envisaged,• grading scale: pos. (6–10), neg. (1–5).
8.	References (3-5):	<ul style="list-style-type: none">• Vodopivec, Aleš. Jože Plečnik und Edvard Ravnikar : von der Interpretation der antiken Architektur zum klassischen Ideal. V: Magnano Lampugnani, Vittorio (ur.). Die Architektur, die Tradition und der Ort, München: Deutsche Verlags-Anstalt, 2000, str. 329-359.• Vodopivec, Aleš. Poetika gradnje. V: Dolenc, Metka: Savin Sever arhitekt : monografija. Ljubljana: Nuit, 2003, str. 12-19.• Vodopivec, Aleš. Več poglavij. V: Frampton, Kenneth, Magnano Lampugnani, Vittorio (ur.). World architecture 1900-2000: a critical mosaic. Vol. 4, Mediterranean Basin. Wien; New York: Springer, cop. 2002.• Vodopivec, Aleš (ur.). Edvard Ravnikar: Umetnost in arhitektura : zbornik esejev. V Ljubljani: Slovenska matica, 2007.• Vodopivec, Aleš. The cultural identity of place. V: Hohmann, Hasso (ur.). Architektur im Kontext. Graz: Academic Publishers, 2007.

1.				
Course title:	Architectural Research by Design			
Course coordinator:	prof. Vojteh Ravnikar			
Lecturers:	prof. Vojteh Ravnikar			
No. of hours: 250	Lectures: 15	Seminar:	Lab. work:	Other: 235
ECTS:	10			

2.	
Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved outline of the doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement • architectural professional profile
3.	
Objectives of the course and intended learning outcomes (competences):	<ul style="list-style-type: none"> • an ability to recognize different levels of sensitivity of architectural space • an ability of sensible but creative response to various sensitivity levels of treated space • an ability to develop such methods of architectural design, which enhance the creative and sensible consideration of various levels of architectural space
4.	
Contents (Syllabus outline):	<ul style="list-style-type: none"> • comprehension of architectural design and architectural practice as a research laboratory • integration of traditional, pragmatic and liberal approaches in the development of architectural methodology • conceptualization of architectural experimental research design based on critical reflections of comparable solutions • possibilities of methodological developments based on architectural experimental design

<p>5. Literature:</p>	<ul style="list-style-type: none"> • Belderbos, Marc; Verbeke, Johann (ur.): <i>The Unthinkable</i>. Brussels: Hogeschool of Architecture Sint-Lucas & Network for Theory, History and Criticism in Architecture, 2007. • Cross, Nigel. <i>Designerly Ways of Knowing</i>. Springer Verlag, 2006. • Gibbons, Michael etc.: <i>The New Production of Knowledge</i>. London: Sage, 1994. • Gleanville, Ranulph: <i>Researching Desing and Designing Research. Desing Issues</i>, 1999. • Rendell, Jane; Hill, Jonathan; Fraser, Murray; Dorrian, Mark (ur.): <i>Critical Architecture</i>. Routledge, 2007. • van Schaik, Leon: <i>Mastering Architecture: Becoming a Creative Innovator in Practice</i>. Willey Academy, 2005.
<p>6. Teaching methods:</p>	<p>Combination of contemporary didactic methods, from lectures to individual study-presentations and e-learning options; round tables with invited guests; workshops with case studies; organized together with other elective courses, or, upon the candidate's agreement; individual consultancy.</p>
<p>7. Assessment methods:</p>	<ul style="list-style-type: none"> • evaluation of individual seminar work, its presentation and discussion, • no further subdivision of credits is envisaged, • grading scale: pos. (6–10), neg. (1–5).
<p>8. References (3-5):</p>	<ul style="list-style-type: none"> • RAVNIKAR, Vojteh. <i>Arhitektura iz arhitekture. Architecture from Architecture. AB, Arhit. bilt.</i>, 20 (1990), 105-106, str. 20-27. • VODOPIVEC, Aleš, RAVNIKAR, Vojteh, GABRŠEK-PROSENC, Meta. <i>Edvard Ravnikar : spominski kompleks Kampor, otok Rab = memorial komplex Kampor, isle of Rab. Piranesi</i>, Autumn 1994, vol. 3, no. 4, str. 6-31, ilustr. • RAVNIKAR, Vojteh. <i>O arhitektovi vlogi pri prenovi spomenika. Ann, Ser. hist. sociol.</i>, 5, št. 6 (1995), str. 21-24, Ilustr. • RAVNIKAR, Vojteh. <i>Letno kopališče. V: PREŠEREN, Damjana (ur.), BERNIK, Stane. 20. stoletje : arhitektura od moderne do sodobne : vodnik po arhitekturi, (Zbirka Dnevi evropske kulturne dediščine)</i>. Ljubljana: Zavod za varstvo kulturne dediščine Slovenije, 2001, str. 147-149, ilustr. • RAVNIKAR, Vojteh. <i>Vila Ferrari. V: PREŠEREN, Damjana (ur.), BERNIK, Stane. 20. stoletje : arhitektura od moderne do sodobne : vodnik po arhitekturi, (Zbirka Dnevi evropske kulturne dediščine)</i>. Ljubljana: Zavod za varstvo kulturne dediščine Slovenije, 2001, str. 187-189, ilustr.

1. Course title:	Contemporary Approaches to Urbanism			
Course coordinator:	prof. Janez Koželj			
Lecturers:	prof. Janez Koželj			
No. of hours: 250	Lectures: 15	Seminar:	Lab. work:	Other: 235
ECTS:	10			

2. Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved outline of the doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<p>The aim of the course is to clarify different approaches to the urban planning and managing of the cities within contemporary context of globalization, decentralization, privatization, individualization and increasing mobility. The specific competences expecting of the course are: understanding the nature of transformative processes of contemporary city, responding to the various urban situations by implementing adequate planning and developmental instruments, setting up urban rules and conditions for directing long term urban development, programming and ordering transformative processes, representing information by operative mapping (data-scaping), applying techniques of interactive planning and participatory decision making by using parametric tools (E-City) and tactics of good urban governance.</p>
4. Contents (Syllabus outline):	<p>The content of the course consists of theoretical and practical part. The introduction gives an outlook into globalization processes, neo-liberal conditions, specifics of post-urban space and emerging rights to the city. Furthermore the critical analysis of traditional methods and techniques of urban planning and urban development will explain for what reasons current urbanism is not able to reflect the needs of post-industrial society, neglecting capacity of computing and informational communication technology. In reply, new emerging modes of flexible urbanism will be presented. Among operative methods and techniques of processual and pro-active urban planning the course will introduce light urbanism, regulative urbanism, operative urbanism, consensual urbanism, new urbanism, loose urbanism and pseudo urbanism, all establishing the plethora of possible responses to the contemporary urban condition. In addition, the role of the city governance in response to a changing environment, instruments of equity linkage and innovative modes of urban management will be presented.</p>

architectural module

5. Literature:	<ul style="list-style-type: none">• Allen Stan, 2000, Practice, architecture, technique, representation, G+B Arts international imprint, ISBN 90-5701-072-0• Blowers Anrew, Evans Bob (ur.), 1997, Town Planning into 21st Century, Routledge, London, NewYork, ISBN 0-415-10525-0• Čerpes Ilka, Dešman Miha (ur.), 2007, O urbanizmu : Kaj se dogaja s sodobnim mestom? Krtina, Ljubljana, ISBN 978-961-6174-92-3• Koolhaas, Rem (ur.) 2004. Content: Triumph of Realization. Köln: Taschen.• Landry Charles, 2000, The Creative City, a toolkit for urban innovators, Earthscan, London, ISBN: 1-85383-613-3• McCullough Malcolm, 2004, Digital Ground, Architecture, pervasive Computing and Evironmental Knowing, The MIT Press, Cambridge, Mass.• MVRDV, 2005, Km3, Excursions on Capacity, ACTAR, Barcelona, ISBN 84-95951-85-1• Sadler Simon, 1999, The Situationists City, The MIT Press, Cambridge, Mass. , ISBN 0-262-19392-2
6. Teaching methods:	Interactive lectures, case studies, best practice examples, team workshop.
7. Assessment methods:	<ul style="list-style-type: none">• evaluation of seminar work,• no further subdivision of credits is envisaged,• grading scale: pos. (6–10), neg. (1–5).
8. References (3-5):	<ul style="list-style-type: none">• KOŽELJ, Janez. O krizi urbanizma in izhodih iz nje. <i>Urbani izziv</i>, april 1992, št. 19, str. 20-25, ilustr.• KOŽELJ, Janez. Slovenska mesta na prehodu iz strnjenege v razpršeno, regionalno mesto. <i>Glas. Unesco (Slov. izd.)</i>, april 1998, let. 19, št. 58, str. 48-51.• KOŽELJ, Janez. Krajinska arhitektura - krajinski urbanizem. <i>AB, Arhit. bilt.</i>, julij 1998, let. 28, št. 139-140, str. 1.• KOŽELJ, Janez. Opredelitev sodobnega mesta, V: Ilka Čerpes, Miha Dešman (ur.), 2007, O urbanizmu : Kaj se dogaja s sodobnim mestom? Krtina, Ljubljana, ISBN 978-961-6174-92-3.

1. Course title:	Architectural Theory and Critique – Selected Themes			
Course coordinator:	prof. dr. Fedja Košir			
Lecturers:	prof. dr. Fedja Košir			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<ul style="list-style-type: none"> • to gain an in-depth knowledge and understanding of problems focused on architectural theory and their development: terminology, metrology, phenomenology, theory of composition and theory of presentation • an ability of critical distance – an ability of evaluation system development and quality assessment
4. Contents (Syllabus outline):	<p>Selected themes include chapters from:</p> <ul style="list-style-type: none"> • architectural concept of Antiquity and Renaissance • from Renaissance to functionalism • functionalism and post-functionalism • Slovene theoretical chapters: a) sacral versus profane aesthetics; b) socrealism: functionalism: post-modernism; c) minimalistic mask of post-modernism
5. Literature:	<ul style="list-style-type: none"> • KOŠIR, Fedja. K arhitekturi. Ljubljana: Fakulteta za arhitekturo, 2006-2007. Zv. <1-3>, ilustr. ISBN 961-6160-64-8. ISBN 978-961-6160-64-3.

● interdisciplinary module

6.	Teaching methods:	Combination of contemporary didactic methods, from lectures to individual study-presentations; round tables.
7.	Assessment methods:	<ul style="list-style-type: none">• evaluation of short discussion contributions,• no further subdivision of credits is envisaged,• grading scale: pos. (6–10), neg. (1–5).
8.	References (3-5):	<ul style="list-style-type: none">• KOŠIR, Fedja. Slovenska šola za arhitekturo v mednarodnih teoretskih tokovih. Piranesi, Autumn 1998, let. 5, št. 7/8, str. 78-85, ilustr.• KOŠIR, Fedja. Vrednote : metode in merila. Urbani izziv, december 1991, št. 18, str. 29-32.• KOŠIR, Fedja. Der theoretische und kritische Architekturdiskurs in Slowenien : neun aktuelle Varianten = Theories and critical discourse in Slovenian architecture : nine variations. V: HELLMAYR, Nikolaus (ur.). Satzbau : Architektur - Theorie - Kritik : architecture - theory - criticism, (HdA, H. 1). Graz: Haus der Architektur, [1994], str. 98-103.• KOŠIR, Fedja. K arhitekturi. Ljubljana: Fakulteta za arhitekturo, 2006-2007. Zv. <1-3>, ilustr. ISBN 961-6160-64-8. ISBN 978-961-6160-64-3.• KOŠIR, Fedja, KREČIČ, Peter, ZUPANČIČ, Bogo. Le Corbusier, 1887-1965 : ob stodvajsetletnici arhitektovega rojstva. V Ljubljani: Fakulteta za arhitekturo: Arhitekturni muzej, 2007. 121 str., ilustr. ISBN 978-961-6160-77-3.

1. Course title:	Analysis and Criticism of Contemporary Architecture			
Course coordinator:	doc. dr. Petra Čeferin			
Lecturers:	doc. dr. Petra Čeferin			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<ul style="list-style-type: none"> • course enables and encourages students to develop critical assessment and reflection of current developments in architecture; surveys various architectural tendencies of recent decades, and critically assess them • students understand the inseparable intertwining of architecture as discourse, and architecture as building and/or design • students understand the engagement of architecture with the complex network of conditions that constitute each given situation in which it is made; to understand architecture as a social practice, • students grasp how the concept of invention – as one of the key concepts in architecture – is used in architectural discourse today and to critically reflect upon this usage/concept
4. Contents (Syllabus outline):	<ul style="list-style-type: none"> • introduction to the contemporary architectural production: populism, rationalism, structuralism, productivism, post-modernism, Neo-Avantgarde, critical regionalism, reflective practices, sustainable architecture • the significance and role of the media in contemporary architecture the issue and significance of the intertwining of architectural production as building and design, and the “less material” production of architecture in the media • conditions of the emergence of contemporary architecture the ways of engagement of architectural production/architecture with the economic, political and cultural contexts in which it works/is made: architecture as an integral part of social reality vs. architecture as a transformation of architectural and social reality; • the possibilities and conditions of architectural invention in the contemporary production of architecture; structure of architectural invention and the realms of its operation.

● interdisciplinary module

5.	
Literature:	<ul style="list-style-type: none">• A. Badiou, <i>XX. stoletje</i>, Ljubljana, 2005.• A. Badiou, <i>Etika</i>, Ljubljana, 1996.• J. Baudrillard, <i>The Singular Objects of Architecture</i>, Minneapolis in London, 2002.• V. B. Canizaro (ur.), <i>Architectural Regionalism: Collected Writings on Place, Identity, Modernity, and Tradition</i>, New York, 2007.• B. Colomina, <i>Privacy and Publicity: Modern Architecture as Mass Media</i>, Cambridge-Mass., 1994.• K. Frampton, <i>Modern Architecture: A Critical History</i>, New York-London, 2007.• K. Frampton, <i>Labour, Work and Architecture</i>, London, 2002.• K. M. Hays (ur.), <i>Architecture Theory Since 1968</i>, Cambridge-Mass., 2000.• J. Ockman (ur.), <i>Architecture, Criticism, Ideology</i>, Princeton, 1985.
6.	
Teaching methods:	Lectures, seminars, discussions on the question of contemporary architecture related to current state of affairs (in architecture) in Slovenia and elsewhere.
7.	
Assessment methods:	<ul style="list-style-type: none">• research paper and its public presentation,• no further subdivision of credits is envisaged,• grading scale: pos. (6–10), neg. (1–5).
8.	
References (3-5):	<ul style="list-style-type: none">• P. Čeferin in C. Požar (ur.), <i>Arhitekturni epicentri: invencije arhitekture, intervencije v realnost</i>, Ljubljana, izid predviden: april 2008.• P. Čeferin, <i>Constructing a Legend: The International Exhibitions of Finnish Architecture 1957-1967</i>, Helsinki, 2003.• P. Čeferin, "Branded: The MFA and the International Promotion of Finnish Architecture". V: K. Paatero (ur.), <i>Suomen rakennustaiteen museo - Finlands arkitekturmuseum - Museum of Finnish Architecture 1956-2006</i>, Helsinki, 2006.• P. Čeferin, "Projekt v delu: sodobna slovenska arhitektura" <i>Oris</i>, IX-47, Zagreb, 2007.• P. Čeferin, "A Constructed Reality: Imagining the Natural Landscape in Finland's Architecture", <i>Topos</i>, 57/2006, Munchen.

1.				
Course title:	The Origins of Modernity			
Course coordinator:	doc. dr. Nataša Koselj			
Lecturers:	doc. dr. Nataša Koselj			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2.	
Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3.	
Objectives of the course and intended learning outcomes (competences):	<ul style="list-style-type: none"> • to deepen the knowledge of cultural, historical, sociological, psychological and etymological origins of the Modernity • to approach different disciplines of the Modernity in the interdisciplinary fashion
4.	
Contents (Syllabus outline):	<p>The course illuminates:</p> <ul style="list-style-type: none"> • the dialectic of the development • the origins and concepts of the Modernity through comparative analysis of the theory, individual works of art , their authors and the influences of the space and time of their origin <p>It tries to answer the questions:</p> <ul style="list-style-type: none"> • What is the Modernity? • When does it appear, why does it appear? • How do we use the term Modern? • What is space, what is time? • What is the essence of the creative process?

● interdisciplinary module

5.	
Literature:	<ul style="list-style-type: none">• Baudrillard, Jean: <i>Modernité, La modernité ou l'esprit du temps</i>, Bien. de Paris, 1982.• Giedion, Sigfried: <i>Space, Time and Architecture</i>, Cambridge, 1965.• Giddens, Anthony: <i>The Consequences of Modernity</i>, Stanford University Press, 1991.• Habermas, Jürgen: <i>Modernity – An Incomplete Project</i>, 1980.• Jameson, Fredric: <i>A Singular Modernity</i>, Verso, London, 2002.• Kruft, Hanno-Walter: <i>A History of Architectural Theory From Vitruvius to the Present</i>, Princeton Architectural Press, 1994.• Pirjevec, Dušan: <i>Arhitektura kot umetnost</i>, ab, 30-31, str. 3-5, 1976.• Ravnikar, Edvard: <i>Ali mora ta hiša biti ravno taka?</i>, ab, 36-37, 2-3, 1978.• Ruskin, John: <i>The Seven Lamps of Architecture</i>, Allen&Unvin, London, 1925.• Virilio, Paul: <i>From Modernism to Hypermodernism and Beyond</i>, Virilio Live, Sage, London, 2001.
6.	
Teaching methods:	interdisciplinary teaching methods
7.	
Assessment methods:	<ul style="list-style-type: none">• the exam consists of: written essay on a chosen topic and the discussion,• no further subdivision of credits is envisaged,• grading scale: pos. (6–10), neg. (1–5).
8.	
References (3-5):	<ul style="list-style-type: none">• KOSELJ, Nataša, KOSELJ, Nataša (ur.). <i>Arhitektura 60-ih let v Sloveniji = [Architecture of the 60ies in Slovenia : kontinuiteta ideje]</i>, (AB, Posebna izdaja, Letn. 25, nov. 1995). Ljubljana: AB, 1995. 226 str., ilustr.• RAVNIKAR, Vojteh, ZOREC, Maruša, GREGORIČ, Tina, KOSELJ, Nataša. <i>Evidenca in valorizacija slovenske moderne arhitekture med leti 1945-70</i>. Ljubljana: Fakulteta za arhitekturo, 2000. 56 str., ilustr.• KOSELJ, Nataša. <i>Somrak prostora : slovenska arhitektura v obdobju 1975-1985</i>. V: ZABEL, Igor (ur.), ŠPANJOL, Igor (ur.), BENEGALIJA, Germana. <i>Do roba in naprej : slovenska umetnost 1975-1985</i>. Ljubljana: Moderna galerija, 2003, str. 216-229, ilustr.• KOSELJ, Nataša. <i>Tradicija napredka : arhitektura in misel Edvarda Ravnikarja</i>. AB, <i>Arhit. bilt.</i>, 2004, letn. 34, št. 165/166, str. 2-7, ilustr.• KOSELJ, Nataša. <i>Atlas Ravnikar : vodnik po arhitekturi Edvarda Ravnikarja : izdano ob 100. obletnici rojstva Edvarda Ravnikarja</i>. Ljubljana: Docomomo Slovenija, 2007. ISBN 978-961-92298-0-4.

1. Course title:	Interpretation of Memory in Architecture			
Course coordinator:	doc. Maruša Zorec			
Lecturers:	doc. Maruša Zorec			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<ul style="list-style-type: none"> • understanding of the established methods of the study of the history of architecture • understanding of the relationship architecture – memory, • ability to develop new concepts how memory is interpreted in architecture • understanding and development of new potentials of joining old and new in architecture
4. Contents (Syllabus outline):	<ul style="list-style-type: none"> • review of the methods of studying architectural history, overview of the approaches and ways of interpretation of memory in architecture • architecture that joins old and new, overview of the historical examples, research of the concepts • development of the new concepts of interpretation of the memory in architecture • development of the new concepts in the relationship of old and new in architecture

● interdisciplinary module

<p>5. Literature:</p>	<ul style="list-style-type: none"> • Bonča M., 1987: Novo in staro kot integralni prostor. Fakulteta za arhitekturo, gradbeništvo in geodezijo, Ljubljana. • Borisov P., 1978: Interpretacija zgodovinske metode v raziskovalnem delu. • Zdrav. Vestn 1978 47: 465-8. • Derrida, Jacques, Truth in Painting, Chicago: University of Chicago Press, 1987. • Heidegger, Martin, "Bauen Wohnen Denken", in Mensch und Raum. Das Darmstädter Gespräch 1951. • Heidegger, M., 1990: Identiteta in diferenca. Zbirka Znamenja. Založba Obzorja. Maribor • Pallasmaa, Juhani, 1989: Tradition and Modernity, The Architectural Review, London • Pirjevec, Dušan, 1976: Arhitektura kot umetnost. AB 30/31 (1976): 3-5 • Vodopivec, Aleš, 1993: Temelji in meje arhitekturne avtonomije (doktorska disertacija). Fakulteta za arhitekturo, gradbeništvo in geodezijo, Šola za arhitekturo, Univerza v Ljubljani, Ljubljana • Wittgenstein, Ludwig, Philosophical Investigations, (Philosophische Untersuchungen) New York, MacMillan, 1953.
<p>6. Teaching methods:</p>	<p>Lectures, active study, individual research and planning studies on the actual examples, public presentation of the work and public discussion, group workshops, interdisciplinary, connections with other faculties, guests from the practice, individual consultancy.</p>
<p>7. Assessment methods:</p>	<ul style="list-style-type: none"> • evaluation of individual seminar work, its presentation and discussion, • no further subdivision of credits is envisaged, • grading scale: pos. (6–10), neg. (1–5).
<p>8. References (3-5):</p>	<ul style="list-style-type: none"> • ZOREC, Maruša. Jugovec in zlatarna, ki je ni več. AB, Arhit. bilt., november 2000, let. 30, št. 149-150, str. 8-9, ilustr. • RAVNIKAR, Vojteh, ZOREC, Maruša, GREGORIČ, Tina, KOSELJ, Nataša. <i>Evidenca in valorizacija slovenske moderne arhitekture med leti 1945-70</i>. Ljubljana: Fakulteta za arhitekturo, 2000. 56 str., ilustr. • ZOREC, Maruša: K bistvu stvari = Towards the essence of things. Tranzicija / Átmenetek / Transitions. Az Építészet Holyzetéról / On the state of architecture. International Symposium on Architecture 2002, Budapest. Predavanje na mednarodnem simpoziju Transitions, Budimpešta, 2002. Zbornik Átmenetek / Transition, Hungarian Edition Terc Kft., 2002, s.136-151 ISBN 963 86263 5 6, ISSN 1587-592X. • ZOREC, Maruša: Oton Jugovec : arhitekt = architect : 1921-1987, (Piranesi, no. 11, 12, vol. 8, 2000/2001). Ljubljana: Piranesi, 2001. 172 str., ilustr. ISSN 1318-007X. • ZOREC, Maruša, KUČAN, Ana, KURELAC, Svjetlana. Živeti v spomeniku. Prenova gradu Ravne na Koroškem za namene osrednje koroške knjižnice dr. Franca Sušnika = Renovation of Ravne na Koroškem Castle for the purposes of the dr. Franc Sušnik Central Carinthian Library. Piranesi, 2004, vol. 11, št. 19/20, str. [88]-97. ISSN 1318-007 X.

1.				
Course title:	Meaning in Architecture			
Course coordinator:	doc. mag. Tadej Glažar			
Lecturers:	doc. mag. Tadej Glažar			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2.	
Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3.	
Objectives of the course and intended learning outcomes (competences):	<ul style="list-style-type: none"> • grasping of specific concepts related to the area of meaning in architecture • capability to understand the research methods and the implementation of course theme • capability of developing new methods and implementation of course theme to modern architectural practice
4.	
Contents (Syllabus outline):	<ul style="list-style-type: none"> • origins and purpose of meaning in architectural environment • significance of architectural environment • power of meaning, messages • historical development and the role of architectural expression through developing architectural practice (questions on monumentality ...) • potentials of architectural expression in modern practice
5.	
Literature:	<ul style="list-style-type: none"> • Frampton, Kenneth: Studies in tectonic culture. Cambridge MA / London: The MIT Press, 1995. • Schumacher, Thomas: Surface and symbol. New York: Princeton Architectural Press, 1990. • Venturi, Robert; Scott Braun, Denise: Learning from Las Vegas: The Forgotten Symbolism of Architectural Form. Cambridge, MA: The MIT Press, 1972. • Arendt, Hannah: The Recovery of the Public World. New York: St. Martin's Press, 1979. • Maldonado, Tomas. Design, Nature And Revolution: Toward A Critical Ecology. Harper & Row, New York: 1972.

● interdisciplinary module

6.	Teaching methods:	Combination of contemporary didactical forms such as classical lectures, individual presentations of students, guided discussions, case studies, inclusions of invited persons from practice, or individual consultancy upon the candidate's agreement.
7.	Assessment methods:	<ul style="list-style-type: none">• evaluation of individual seminar work, its presentation and discussion,• no further subdivision of credits is envisaged,• grading scale: pos. (6–10), neg. (1–5).
8.	References (3-5):	<ul style="list-style-type: none">• GLAŽAR, Tadej, Designing Competition: Graphic Form vs. Architectural Content, Mednarodna konferenca Design Education – A Dialogue Across Cultures, urednika: Petrić, M., Tomić-Koludrović, I., Umjetnička akademija sveučilišta u Splitu, 2002, stran: 45.• GLAŽAR, Tadej, KOŽELJ, Janez, Coast Wise Europe, Slovenian Litoral, urednik: de Graaf z Camp, L., monografija Europe: Coast Wise - an anthology of reflections on architecture and tourism, Rotterdam, 010 publishers, Rotterdam, 1997, str. 266-277.• GLAŽAR, Tadej. Nachklang der Reifen moderne-sensible Modernität : kroatische moderne architektur der fünfziger- und sechzigerjahre von Konzepten zu Realisierungen - Träume und Wirklichkeit. V: STILLER, Adolph (ur.). Avantgarde & Kontinuität : Kroatien, Zagreb, Adria, (Architektur im Ringturm, 14). [Wien]: Anton Pustet, [2007], str. 46-71.• GLAŽAR, Tadej, Arhetip i poligon za inovacije: Ivan Vitić, Dom kulture, Komiža, otok Vis, 1961 = Archetype and polygon for innovations : Ivan Vitić, Culture centre Komiža, island of Vis, 1961 / tekst, text by Tadej Glažar, Arhitektura. - ISSN 0350-3666. - #God. #54, #br. #1(217) (2005), str. 69-77.

1.				
Course title:	Architectural Analogies			
Course coordinator:	doc. dr. Lučka Ažman Momirski			
Lecturers:	doc. dr. Lučka Ažman Momirski			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2.	
Prerequisites:	<ul style="list-style-type: none"> for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3.	
Objectives of the course and intended learning outcomes (competences):	<p>Students acquire the knowledge for:</p> <ul style="list-style-type: none"> critical monitoring of current contents of the discipline of architecture opening up alternative, fresh, new understandings (interpretations) in architecture and town planning
4.	
Contents (Syllabus outline):	<p>Basic content areas and problems:</p> <ul style="list-style-type: none"> basic terminology comparisons of architecture and town planning with other disciplines applicability of methods in studying the subject interpretations during familiarization with content simultaneous or alternate studying of two or more contents in order to identify common characteristics or differences
5.	
Literature:	<ul style="list-style-type: none"> Forty, A., 2000: Words and buildings: a vocabulary of modern architecture. Thames & Hudson, London. Ažman Momirski, L., 2004: Arhitektura in arheologija: razlike in sorodnosti (izbrana poglavja). Doktorska disertacija, Fakulteta za arhitekturo Univerze v Ljubljani, Ljubljana. Hays, M., 1998: Architecture theory since 1968. Cambridge, Mass., London: The MIT Press.

● interdisciplinary module

6.	
Teaching methods:	Reasoning by analogy is reasoning from the particular to the particular. This method enables reasoning by similarities: if two statements correspond in individual characteristics that are known to us, they might also correspond in those characteristics that we do not know. If a phenomenon occurs in specific circumstances, we can expect such a phenomenon to occur in very similar circumstances elsewhere.
7.	
Assessment methods:	<ul style="list-style-type: none">• drawing up of seminar paper,• no further subdivision of credits is envisaged,• grading scale: pos. (6–10), neg. (1–5).
8.	
References (3-5):	<ul style="list-style-type: none">• AŽMAN MOMIRSKI, Lučka. Citizen urban : the search for happiness. V: WAGENAAR, Cor (ur.). <i>Happy cities and public happiness in post-war Europe</i>. Rotterdam: NAI Publishers, 2004, str. 209-[215], ilustr.• AŽMAN MOMIRSKI, Lučka. Terasirana pokrajina. V: AŽMAN MOMIRSKI, Lučka, KLADNIK, Drago, KOMAC, Blaž, PETEK, Franci, REPOLUSK, Peter, ZORN, Matija. <i>Terasirana pokrajina Goriških brd</i>, (Geografija Slovenije, 17). Ljubljana: Založba ZRC, 2008, str. 98-118, ilustr.• AŽMAN MOMIRSKI, Lučka. Primerjava dveh disciplin: arhitekture in arheologije = Comparison between two disciplines: architecture and archaeology. <i>AR, Arhit. razisk. (Tisk. izd.)</i>. [Tiskana izd.], 2006, [Št.] 1, str. 56-61.• AŽMAN MOMIRSKI, Lučka. Kulturne terase v južnih Goriških brdih na primeru katastrske občine in naselja Medana. V: AŽMAN MOMIRSKI, Lučka, KLADNIK, Drago, KOMAC, Blaž, PETEK, Franci, REPOLUSK, Peter, ZORN, Matija. <i>Terasirana pokrajina Goriških brd</i>, (Geografija Slovenije, 17). Ljubljana: Založba ZRC, 2008, str. 119-138, ilustr.

1. Course title:	Corpus of the Slovene Architecture – Selected Themes			
Course coordinator:	prof. dr. Peter Fister			
Lecturers:	prof. dr. Peter Fister			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	In-depth knowledge of documenting, analyzing and evaluation of special architectural heritage in Slovenia and elsewhere that is important as cultural heritage, as identity- structure of good living environment and as the material basis for sustainable, ecological and economical development.
4. Contents (Syllabus outline):	<ul style="list-style-type: none"> Selected themes include chapters from: new research-methods of architecture in Slovenia with direct connection to the European research-projects and integral knowledge of the corpus of Slovene architecture formation of new forms of interdisciplinary education with the connections within Slovenian and international environment as well as direct cooperation in European research projects
5. Literature:	<ul style="list-style-type: none"> specific literature connected to all selected themes (see: references)
6. Teaching methods:	Lectures, special discussions, individually elaborated theme with individual consultations.

● interdisciplinary module

7.	Assessment methods:	<ul style="list-style-type: none">• individually selected and elaborated theme (short paper) and it's presentation in form of discussion,• no further subdivision of credits is envisaged,• grading scale: pos. (6–10), neg. (1–5).
8.	References (3-5):	<ul style="list-style-type: none">• FISTER, Peter. <i>Umetnost stavbarstva na Slovenskem</i>. Ljubljana: Cankarjeva založba, 1986. 439 str., ilustr.• FISTER, Peter, BOH-PEČNIK, Nuša, DEU, Živa, LAH, Ljubo. <i>Glosar arhitekturne tipologije</i>, (Prostor, Arhitekturna identiteta, Poselitev, 1). Ljubljana: Ministrstvo za okolje in prostor Republike Slovenije, Zavod Republike Slovenije za prostorsko planiranje, 1993. 144 str., ilustr. ISBN 961-90033-0-6.• FISTER, Peter, BOH-PEČNIK, Nuša, DEBEVEC, Leon, DEU, Živa, KAVČIČ, Mateja, LAH, Ljubo. <i>Arhitekturne krajine in regije Slovenije</i>, (Prostor, Arhitekturna identiteta, Poselitev, 2). Ljubljana: Ministrstvo za okolje in prostor Republike Slovenije, Zavod Republike Slovenije za prostorsko planiranje, 1993. 245 str., [1] zganj. zvd., ilustr., zvd. ISBN 961-90033-1-4.• FISTER, Peter. Korpus slovenske arhitekture = Corpus of the Slovene architecture. <i>AR, Arhit. razisk. (Tisk. izd.)</i>. [Tiskana izd.], 2001, [Št.] 1, str. 11-13, ilustr.• FISTER, Peter. <i>Reurbanizacija/prenova naselbin in arhitekture : (metodologija načrtovanja) = Reurbanisation of architecture and urban structures : (planning methodology)</i>. Ljubljana: Fakulteta za arhitekturo, 2007. ISBN 978-961-6160-69-8.

1. Course title:	Identity of Slovene Architecture			
Course coordinator:	prof. dr. Igor Kalčič			
Lecturers:	prof. dr. Igor Kalčič, doc. dr. Peter Marolt			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<p>Students:</p> <ul style="list-style-type: none"> understand and recognize Slovenian architecture in its uniqueness are able to develop methods and techniques to develop, manage and preserve identity of the space
4. Contents (Syllabus outline):	<ul style="list-style-type: none"> methods and ways of recognizing entities of Slovenian architecture that define and determine the unique Slovenian architecture analysis and proving of uniqueness absolute and relative identity of architectural objects; difference in solutions with comparisons and analysis of architectural elements origins of difference of Slovene architecture to other world architectures
5. Literature:	<ul style="list-style-type: none"> Drexler, A., 1980. Transformations in modern architecture, Secker and Warburg, London. Ivanšek, F., 1988. Družina, stanovanje, naselje, Ambient, Ljubljana. Schultz, C. N., 1985. The cocncept of Dwelling, Electa – Rizzoli, New York. Zevi, B., 1980., La presenza del passato, Editione La biennale di Venezia, Venezia. Rossi, A., 1980., L architettura della citta, CLUP, Milano. Venturi, R., 1975., Complexity and Contradictions in Architecture, Museum of Modern Art Ed., New York.

● interdisciplinary module

<p>6. Teaching methods:</p>	<p>Individual consultations, in case of greater number of students also lectures with obligatory discussion about the contents of every lecture; web research about identity is also obligatory.</p>
<p>7. Assessment methods:</p>	<ul style="list-style-type: none"> • evaluation of seminar-project work, on the theme of »identity« in student's doctoral thesis, • no further subdivision of credits is envisaged, • grading scale: pos. (6–10), neg. (1–5).
<p>8. References (3-5):</p>	<ul style="list-style-type: none"> • KALČIČ, Igor. <i>Arhitektura v slovenskem prostoru - 3. del, nadaljevanje</i>, (Arhitektura). Ljubljana: RSS, 1991. 176 str., ilustr. • KALČIČ, Igor. Identity as element of culture and tradition in the development of housing in Slovenia. V: URAL, Oktay (ur.), INAN, Mehmet (ur.), BORVICE, Al (ur.). 27th IAHS World Congress on Housing, San Francisco, California, June 1.-7.1999. <i>Housing issues and challenges for the new millenium : proceedings</i>. San Francisco: International Association for Housing Science, 1999, str. 316-320. • KALČIČ, Igor. From local culture and tradition to good modern housing design. V: BELKADI, Bedredine (ur.), AL-HABSHI, Ahmed A. (ur.). The 28th IAHS World Congress on Housing, Abu Dhabi, United Arab Emirates, April 15.-19., 2000. <i>Housing challenges for the 21st century</i>. Abu Dhabi: International Association for Housing Science, 2000, str. 107-113. • KALČIČ, Igor. Identiteta slovenske stanovanjske arhitekture = Identity of Slovenian residential architecture. <i>AR, Arhit. razisk. (Tisk. izd.)</i>. [Tiskana izd.], 2003, [Št.] 1, str. 24-29, ilustr. • KALČIČ, Igor. Arhitektura po meri likovnosti : raziskava = Architecture in the scale of art : researh. <i>AR, Arhit. razisk. (Tisk. izd.)</i>. [Tiskana izd.], 2003, [Št.] 1, str. 88-89, ilustr. • MAROLT, Peter. Domicile as a shelter of body and soul European experience. V: The 28th IAHS World Congress on Housing, Abu Dhabi, United Arab Emirates, April 15.-19., 2000. <i>Housing challenges for the 21st century : book of abstracts</i>. Abu Dhabi: International Association for Housing Science, 2000, str. 26. • MAROLT, Peter. Home between tradition and progress : migrations, isolation and dwelling. V: SELJAK, Igor (ur.). <i>Housing in constant evolution : proceedings</i>. Ljubljana: Faculty of Architecture, 2001, str. 268-276. • MAROLT, Peter. Arhitektura v ravnovesju = Architecture in balance. <i>AR, Arhit. razisk. (Tisk. izd.)</i>. [Tiskana izd.], 2004, št. 1, str. 36-39, ilustr. • MAROLT, Peter. Arhitekturna vsebina med abstraktnim in konkretnim = Architectural content between the abstract and real. <i>AR, Arhit. razisk. (Tisk. izd.)</i>. [Tiskana izd.], 2005, [Št.] 1, str. 20-25, ilustr. • MAROLT, Peter. Bivališče med idealom, konstrukcijo in uporabnostjo = The dwelling, between the ideal, structure and utility. <i>AR, Arhit. razisk. (Tisk. izd.)</i>. [Tiskana izd.], 2006, [Št.] 1, str. 28-33, ilustr.

1.				
Course title:	Jože Plečnik – The Modern Classicist			
Course coordinator:	prof. dr. Peter Krečič			
Lecturers:	prof. dr. Peter Krečič			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2.	
Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3.	
Objectives of the course and intended learning outcomes (competences):	Acquiring of knowledge, detail insights into historical and art historical problems with the special view on the Slovenian cultural domain.
4.	
Contents (Syllabus outline):	<ul style="list-style-type: none"> • history of the in genuine Slovenian art theories (Izidor Cankar – The System of the Style; France Stele – The Art Geography; Nace Šumi – The Regional Constants) • the problem of the reduced historicism • the genuine combination of the historical and modern architectural language

● interdisciplinary module

5.	
Literature:	<p>General art history sources: see the syllabus of the subject Art History</p> <ul style="list-style-type: none">• Friedrich Achleitner, <i>Die Stellung der Kirche von Bogojina im Sakralbau der Zwischenkriegszeit oder von der Freiheit des architektonischen Denkens / Položaj bogojanske cerkve v cerkvenem stavbarstvu med obema vojnama ali o svobodi arhitekturnega mišljenja</i>, Arhitekt Jože Plečnik v Prekmurju; Knjižnica Slovenskega umetnostnozgodovinskega društva II., Ljubljana 1998, str. 23 - 38• Janez Balazic, <i>Plečnik v Prekmurju – Kulturnozgodovinski oris</i>, Arhitekt Jože Plečnik v Prekmurju; Knjižnica Slovenskega umetnostnozgodovinskega društva II., Ljubljana 1998, str. 14 - 22• Stane Bernik, <i>Ekspressionistične tendence v slovenski arhitekturi, Ekspressionizem in nova stvarnost na Slovenskem, razstavní katalog Moderne galerije</i>, Ljubljana 1986, str. 101-123• Stane Bernik, <i>Pozicija bogojanske cerkve v razvojuslovenske moderne arhitekture</i>; Šumijev zbornik, (Ljubljana /Znanstveni inštitut Filozofske fakultete/) 1999, str. 314-315• Izidor Cankar, <i>Razstava za cerkveno umetnost</i>, Dom in svet št. 2, Ljubljana 1913, str. 60-66• Avgust Černigoj, <i>1 ½ štev. tanka</i>, tank; revue internationale de l'art vivant, Ljubljana 1927, str. 82-83• Andrej Hrausky, Janez Koželj, Damjan Prelovšek, <i>Plečnikova Ljubljana; Vodnik po arhitekturi</i>, (Ljubljana /Dessa/) 1996• Andrej Hrausky, Janez Koželj, Damjan Prelovšek, <i>Plečnikova Slovenija, Vodnik po arhitekturi</i>, (Ljubljana /Dessa/) 1997• Andrej Hrausky, Janez Koželj, Damjan Prelovšek, <i>Plečnik v tujini; Vodnik po arhitekturi</i>, (Ljubljana /Dessa/) 1998• Pavel Janák, <i>Josip Plečnik v Pragi</i>, Zvon (Ljubljana) 1929, str. 78 – 85
6.	
Teaching methods:	Essay/seminar paper written on the topic of the selected theme of individual research work.
7.	
Assessment methods:	<ul style="list-style-type: none">• evaluation of individual seminar work/essay or oral exam,• no further subdivision of credits is envisaged,• grading scale: pos. (6–10), neg. (1–5).
8.	
References (3-5):	<ul style="list-style-type: none">• KREČIČ, Peter. Slovenski konstruktivizem in njegovi evropski okviri. Maribor: Obzorja, 1989. 100 str., [32] str. pril. ISBN 86-377-0430-1.• KREČIČ, Peter. Jože Plečnik. [Ljubljana]: Državna založba Slovenije, 1992. 479 str., ilustr. ISBN 86-341-0649-7.• KREČIČ, Peter. Plečnik : lettura delle forme. Milano: Jaka Books, 1993. 256 str., ilustr. ISBN 88-16-60123-X.• KREČIČ, Peter. Avgust Černigoj: vzporednice, razhajanja, pomen. Razgledi (Ljublj.), 14. apr. 1999, št. 8, str. 26-27, ilustr.• KREČIČ, Peter. Plečnik in ekspresionizem : ob 130. obletnici Plečnikovega rojstva, (Zbirka Vizure). Ljubljana: Nova revija, 2002. 95 str., ilustr. ISBN 961-6352-44-X.

1. Course title:	Protection and Rehabilitation of Architectural Heritage			
Course coordinator:	prof. dr. Peter Fister			
Lecturers:	prof. dr. Peter Fister			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	Qualification for the scientific and special field of work in the protection of cultural heritage as nowadays deficit part of the highest education of architects. Making special research-study inside specialist's field of the protection of cultural heritage.
4. Contents (Syllabus outline):	The education about protection and rehabilitation of cultural heritage is connected to the actual changes and experiences of special architectural method and theory with accentuation on Slovene-specific problems and on professionally and scientifically latest achievements and methods of tackling such problems.
5. Literature:	<ul style="list-style-type: none"> • Special national and international literature (see references) and legislation (UNESCO, ICOMOS, ICCROM, ZVKD RS, MK RS, etc.)
6. Teaching methods:	Lectures, professional discussion, individual preparation of research article/paper and open discussion of it's results.

● interdisciplinary module

<p>7.</p> <p>Assessment methods:</p> <ul style="list-style-type: none">• research study and scientific article about the selected problem (architectural or urban historic monument) – open specialist discussion about thesis and propositions,• no further subdivision of credits is envisaged,• grading scale: pos. (6–10), neg. (1–5).
<p>8.</p> <p>References (3-5):</p> <ul style="list-style-type: none">• FISTER, Peter. <i>Obnova in varstvo arhitekturne dediščine</i>. Ljubljana: Partizanska knjiga: Oddelek za arhitekturo Univerze, 1979.• FISTER, Peter. Prostorska dediščina, nova spomeniška vrednota. <i>Vars. spomenikov</i>, 34, (1992), str. 27-47.• FISTER, Peter. Celovito varovanje stavbne dediščine = Integral protection of architectural heritage. <i>AR, Arhit. razisk. (Tisk. izd.)</i>. [Tiskana izd.], 2001, [Št.] 1, str. 15-17, ilustr.• FISTER, Peter. Architecture and urban structures in planning the reurbanisation process = Arhitektura in urbane strukture v načrtovanju procesa reurbanizacije. <i>AR, Arhit. razisk. (Tisk. izd.)</i>. [Tiskana izd.], 2005, [Št.] 2, str. 8-17, ilustr.• FISTER, Peter. <i>Reurbanizacija/prenova naselbin in arhitekture : (metodologija načrtovanja) = Reurbanisation of architecture and urban structures : (planning methodology)</i>. Ljubljana: Fakulteta za arhitekturo, 2007. ISBN 978-961-6160-69-8.

1.				
Course title:	Integral Renewal			
Course coordinator:	doc. dr. Ljubo Lah			
Lecturers:	doc. dr. Ljubo Lah			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2.	
Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3.	
Objectives of the course and intended learning outcomes (competences):	The subject presents the processes of rehabilitation, renovation, renewal and re-urbanization as complex sets of interventions, measures and activities aimed at improving not only the building/compound/settlement technical and spatial design features, but also the dwelling, social, cultural and ecological conditions affecting the final outcome of the architect's or urban designer's efforts.
4.	
Contents (Syllabus outline):	<p>The understanding of fundamental concepts in the field of integral preservation of architectural heritage, familiarization with the interpretations of international data-bases and documents forming the doctrine of integral preservation in the context of sustainable development from the theoretical, methodological, legal and value based point of view.</p> <p>Assortment of methodological topics: creativity and renovation, renovation of a town / town section / rural area / settlement, renovation/rehabilitation of individual buildings, management and cultural heritage, feasibility studies, instruments and mechanisms of spatial planning, planning of adjusted and adapted use of structures in space, preservation of authenticity, conservation interventions, methods and concepts in planning renovation interventions, interdisciplinary and team nature of work.</p>

● interdisciplinary module

5.	
Literature:	<ul style="list-style-type: none">• Sustainable Architectures – Cultures and Natures in Europe and North America (ed.: Guy S. and Moore A. S.), 2005: Spon press, New York, London.• Barton, H., Davis, G., Guise, R., 1995: Sustainable Settlements, FBE, University of the West of England, Bristol.• Feilden, B. M., 1994: Conservation of historic buildings. Butterworth-Heinemann Ltd, Oxford.• Feilden, B. M., Jokilehto, J., 1993: Management guidelines for world cultural heritage sites, ICCROM, Rim.• Pickard, R., D., 1996: Conservation in the built environment. Longman, Singapur.
6.	
Teaching methods:	Combination of modern didactic forms, ranging from classic lectures to individual presentations by students, steered discussions, examination and case studies, field exercises and tours, involvement of guests experts in the educational process.
7.	
Assessment methods:	<ul style="list-style-type: none">• drawing up of an individual's seminar paper and its presentation,• no further subdivision of credits is envisaged,• grading scale: pos. (6–10), neg. (1–5).
8.	
References (3-5):	<ul style="list-style-type: none">• LAH, Ljubo. Od arhitekturnega konservatorstva, obnove in preнове do integralnega varstva dediščine: (teoretska in konceptualna izhodišča) = From architectural conservation, renewal and rehabilitation to integral heritage protection: (theoretical and conceptual starting points). Urbani izziv, 2001, let. 12, št. 1, str. 31-45, 129-137. ISSN 0353-6483• LAH, Ljubo. Prenova stavbne dediščine na podeželju, Kras, (Seidlova zbirka, knj. 10). Novo mesto: Tiskarna Novo mesto, Dolenjska založba, 1994. 237 str., ilustr. ISBN 961-6000-17-9.• LAH, Ljubo. Arhitektura; Naselbinska in stavbna dediščina Krasa. V: LIKAR, Vojislav (ur.), ŽALIK HUZZAN, Milojka (ur.), CULIBERG, Metka, KRANJC, Andrej. Kras : pokrajina, življenje, ljudje. Ljubljana: Založba ZRC, ZRC SAZU, 1999, str. 260-271, ilustr. ISBN 961-6182-93-5• FISTER, Peter, BOH-PEČNIK, Nuša, DEBEVEC, Leon, DEU, Živa, KAVČIČ, Mateja, LAH, Ljubo. Arhitekturne krajine in regije Slovenije, (Prostor, Arhitekturna identiteta, Poselitev, 2). Ljubljana: Ministrstvo za okolje in prostor Republike Slovenije, Zavod Republike Slovenije za prostorsko planiranje, 1993. 245 str., [1] zganj. zvd., ilustr., zvd. ISBN 961-90033-1-4.

1. Course title:	Interpretation of Architectural Heritage			
Course coordinator:	doc. dr. Sonja Ifko			
Lecturers:	doc. dr. Sonja Ifko			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<p>The subject deals with analytical presentation of different approaches used to conduct and interpret the cultural as well as natural heritage in given historical context. It helps the student to understand the actual situation as well as to form the appropriate environment protection standing points. In this way they will be able to conduct the modern interpretational interventions. The architectural heritage becomes one of the crucial 'players' in future socioeconomic development, so the competent presentation is mandatory for its successful preservation and economical sustainability.</p>
4. Contents (Syllabus outline):	<ul style="list-style-type: none"> • the role of heritage in modern society: identification of cultural identity, space development potential and economic developer • description of characteristic development of heritage protection and the history of presentation methods and techniques • theory and philosophy of protection of natural and cultural heritage: presentation of different categories of architectural heritage, basics of museumological theory and different protection approaches • presentation of heritage and actual trends • inclusion of heritage protection in development programs

● interdisciplinary module

5. Literature:	<ul style="list-style-type: none">• Tatar, B. (1998): Interpretation and the problem of the intention of the author /izbrana poglavja/, The Council for Research in Values and Philosophy, Washington.• Jokilehto, J. (2002): History of architectural conservation (izbrana poglavja), Butterworth-Heinemann, Oxford.• Maroević, I. (1993): Uvod v muzeologijo, Zavod za informacijske studije, Zagreb.• Znanstveni in strokovni članki, ki obravnavajo aktualno problematiko interpretacije dediščine.
6. Teaching methods:	Lectures, research seminars, project work, individual projects, field work, workshops.
7. Assessment methods:	<ul style="list-style-type: none">• written examination in the form of seminar paper,• no further subdivision of credits is envisaged,• grading scale: pos. (6–10), neg. (1–5).
8. References (3-5):	<ul style="list-style-type: none">• IFKO, Sonja. Ponovna raba - dialektika grajenega = Reuse and the dialectics of built space. Oris (Zagreb), 2006, let. 8, št. 38, str. 4-11, ilustr.• IFKO, Sonja. Industrijska arhitekturna dediščina - zasnova metodologije vrednotenja = Industrial architectural heritage - scheme for a methodology of evaluation. Vars. spomenikov, oktober 1999, let. 38, št. 1, str. 123-151.• IFKO, Sonja. Industrijska arhitekturna dediščina in razvoj načel varstva = industrial architectural heritage and development of the philosophy of protection. AR, Arhit. razisk. (Tisk. izd.). [Tiskana izd.], 2004, [St.] 1, str. 26-29.• IFKO, Sonja. Das industrielle Erbe Sloweniens. V: STADLER, Gerhard A. (ur.). Blätter für Technikgeschichte. Bd. 63. Wien: Technisches Museum Wien, 2001, str. 193-207, ilustr.

1. Course title:	Architectural Archetypes of the Sacred			
Course coordinator:	doc. dr. Leon Debevec			
Lecturers:	doc. dr. Leon Debevec, prof. dr. Jožef Muhovič			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<ul style="list-style-type: none"> understanding the specificity of worship places understanding the complexity of worship places understanding the nature of archetypes and their role (essentiality) in architectural interpretation of sacred learning of methodological ways for individual study on archetypes
4. Contents (Syllabus outline):	<ul style="list-style-type: none"> characteristics of the relationship between place and cult forming layers on the archetypes of the sacred »wrapping« method sanctuaries of ancient religions (Egypt, Ancient Greece, Roman Empire) Christian sanctuaries (The Early Christian age, The Middle-age, Baroque, Second Vatican council) parallel spatial developments of other religions
5. Literature:	<ul style="list-style-type: none"> Castelfranchi, L. in drugi, Iconografia e arte cristiana, Edizioni San Paolo, Torino 2004; Ratzinger, J., 2000: The Spirit of the Liturgy, Ignatius press, San Francisco. Muhovič, J., 2002: Umetnost in religija, Logos, Ljubljana. Pedley, J., 2005: Sanctuaries and the Sacred in the Ancient Greek World, Cambridge University Press, Cambridge. Johnston, S.I., 2004: Religions of the Ancient World, The Belknap Press of Harvard University Press, Cambridge.

● interdisciplinary module

6.	Teaching methods:	Subject is carried out with lectures and conferences, where students present the results of their research projects.
7.	Assessment methods:	<ul style="list-style-type: none">• research project/seminar paper, oral examination,• no further subdivision of credits is envisaged,• grading scale: pos. (6–10), neg. (1–5).
8.	References (3-5):	<ul style="list-style-type: none">• DEBEVEC, Leon. Gli storici dell'arte e la gestione delle chiese in Slovenia. <i>Arte crist.</i>, 1995, vol. 83, no. 770, str. 365-376, ilustr.• DEBEVEC, Leon. Prenova in gradnja bogoslužnih stavb. Ljubljana: Inštitut za sakralno arhitekturo, 1999. 154 str., ilustr.• DEBEVEC, Leon. Verska umetnost 20. stoletja. V: Benedik, Metod (ur.), Juhant Janez (ur.), Kolar, Bogdan (ur.). <i>Cerkev na Slovenskem v 20. stoletju</i>. Ljubljana: Družina, 2002, str. 423 – 439.• DEBEVEC, Leon. Sakralna arhitektura 18. stoletja na Slovenskem : prispevek k globljemu razumevanju. Ljubljana: Fakulteta za arhitekturo, 2004. 24 f.• DEBEVEC, Leon. Identiteta stavbarstva na Pivškem. V: BOŠTJANČIČ, Janko (ur.). <i>Slavenski zbornik</i>. Vrhnik: Galerija 2, 2005, str. 147-167, ilustr.• MUHOVIČ, Jožef. Likovna umetnost in religija. <i>Poligrafi</i>, 2000, letn. 5, št. 19/20, str. 67-112, ilustr.• MUHOVIČ, Jožef. Umetnost in religija. Ljubljana: logos, 2002.• MUHOVIČ, Jožef. Über das Geistige und Körperliche in der Kunst. Etuden über die Psychosomatik der postmodernen Kunstpraxis, v: Elena Agazzi & Eva Kocziszky (ur.), <i>Der fragile Körper</i>, Göttingen: V&R unipress, 2005, str. 159-175.• MUHOVIČ, Jožef & MAJETSCHAK, Stefan (ur.). <i>Umetnost in forma</i>. Ljubljana: Založba Nova revija, 2007.

1.				
Course title:	Architecture of Tourist Buildings			
Course coordinator:	prof. dr. Boris Leskovec			
Lecturers:	prof. dr. Boris Leskovec			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2.	
Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3.	
Objectives of the course and intended learning outcomes (competences):	<p>The subject teaches students the definition of basic field terms such as leisure time, tourism and recreation as well as about the development of such architecture around the world and in Slovenia through different time periods. Basic designing and functional characteristic are also addressed...</p> <p>The purpose of this subject is to teach the students to be able to perform independent scientific research and professionally work in the above mentioned field achieving higher standards.</p> <p>The theoretical lectures in the first part are explained and based on real-life examples taken from the professional practical work in the second part.</p> <p>The subject presents methodical background needed to achieve higher quality of tourist building architecture, while taking into account the global trends on one hand and elements of its identity and typical architecture on the other hand (in the sense of understanding of the so-called "critical regionalism").</p>
4.	
Contents (Syllabus outline):	<ul style="list-style-type: none"> • Introduction and definition of basic aims and goals of the subject. • Definition of basic terms. • Psychology of leisure time and tourism and its influence on architecture. • Development of typology around the world and domestically. • Designing and functional typology characteristics. • Global/regional ratio in tourism and architecture. • Different methodical principles for designing tourist buildings. • Standards and norms. • Role and significance of tourist buildings in Slovenia. • Expected trends in tourist building design.

● interdisciplinary module

<p>5.</p> <p>Literature:</p> <ul style="list-style-type: none"> • ADIE, Donald W. <i>Marinas : a working guide to their development and design</i> / Donald W. Adie. - 2nd ed. - London : The Architectural Press ; New York : Nicholas Publications, 1977. • ASENSIO, Paco (ur.): <i>SKI hotels</i>. New York (NY) ; Düsseldorf ; London : teNeues, 2003. • BAUD-Bovy, Manuel. <i>Tourism and recreation development</i> / Manuel Baud-Bovy and Fred Lawson. London : The Architectural Press ; Boston (Mass.) : CBI, 1977. • FARAMEH, Patrice, KUNZ, Martin Nicholas (ur.): <i>LUXURY hotels : spa & wellness</i>. - 2nd ed. Kempen : teNeues, 2007. • GROOTE, Per von, 1976-<i>Theme hotels</i> / Per von Groote. - 1st ed. - [Berlin] : Braun, 2007. • KUNZ, Martin Nicholas. <i>Best designed ecological hotels</i> / Martin Nicholas Kunz, Patricia Massó. - 1st ed. - Ludwigsburg : Avedition, 2006. • LAWSON, Fred. <i>Congress, convention and exhibition facilities : planning, design and management</i> / Fred Lawson. - Oxford [etc.] : Architectural Press, 2000. • STÜRZEBECKER, Peter. <i>Architecture for sport : new concepts and international projects for sport and leisure</i> / Peter Stürzebecher, Sigrid Ulrich ; with a preface by Frei Otto. - Chichester : Wiley-Academy, 2002. • VAN DOREN, C., PRIDDLE, George B., LEWIS, John E. (ur.): <i>LAND leisure : concepts and methods in outdoor recreation</i> - 2nd ed. - London: Methuen, 1979.
<p>6.</p> <p>Teaching methods:</p> <p>Lectures, discussion, workshops / practical work, group and individual consultations.</p>
<p>7.</p> <p>Assessment methods:</p> <ul style="list-style-type: none"> • seminar work, presentation of the project assignment (of the case study), • no further subdivision of credits is envisaged, • grading scale: pos. (6–10), neg. (1–5).
<p>8.</p> <p>References (3-5):</p> <ul style="list-style-type: none"> • LESKOVEC, Boris. <i>Zasnova športne infrastrukture v prostoru</i>. <i>Urbani izziv</i>, 1998, let. 9, št. 1, str. 31-40, 128-131. • LESKOVEC, Boris. <i>Zasnova športa v prostoru</i>. 1. izd. Ljubljana: Ministrstvo za okolje in prostor, Urad Republike Slovenije za prostorsko planiranje, 1998. ISBN 961-6276-01-8. • LESKOVEC, Boris. <i>Some sustainable development and regional planning aspectd of ski jump centre designed</i>. V: YAMADA, Mizuki (ur.), KAMIYA, Koji (ur.). <i>Nagano Winter Olympic Games memorial international seminar on sport facilities in cold and snow-covered area : proceedings</i>. Tokyo; Nagano: UIA Sports and Leisure Work Programme: The Japan Institute of Architects, JIA, 1998, str. 76-77, ilustr. • LESKOVEC, Boris, JANČIČ, Margarita, ŠOLAR, Helena. <i>Šport v prostoru</i>. Ljubljana: Ministrstvo za okolje in prostor, Urad RS za prostorsko planiranje, 1999. 73 str., ilustr., tabele. ISBN 961-6276-13-1. • LESKOVEC, Boris. <i>Gradnja in tipologija športnih objektov na Slovenskem</i>. V: DOLENC, Ervin (ur.). <i>Telesna vzgoja in šport v preteklosti</i>. Ljubljana: Zveza prijateljev mladine Slovenije, Komisija za delo zgodovinskih krožkov, 2003, str. 20-29.

1. Course title:	Theory of Vernacular Architectural Origins			
Course coordinator:	prof. dr. Borut Juvanec			
Lecturers:	prof. dr. Borut Juvanec			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<ul style="list-style-type: none"> • the objective of the course is: to prove by scientific means the technical and aesthetical field of architectural origins in theory and practice • the goal is to show and defend scientific research as essential part of architectural design
4. Contents (Syllabus outline):	<p>Theory of vernacular architecture and its origins - between techniques, technology, usability, anthropology, ergonomics and aesthetics in architecture:</p> <ul style="list-style-type: none"> • origins of primeval architecture • interrelation of architectural theory and theory of origins • definition of origins • development principles • primeval architecture • scientific research methods for definition of the essence of vernacular architecture and its contemporary conceptual interpretation

● interdisciplinary module

5. Literature:	<ul style="list-style-type: none">• Amerlinck, M. J. 2001. ARCHITECTURAL ANTHROPOLOGY, Bergin London.• Egenter, N. 2004 Vernacular architecture - where do the symbolic meanings come from, v: AR Arhitektura raziskave/Architecture Research 2004/1, Ljubljana.• Fister, P. 2004. Analiza vloge raziskav podeželske stavbne dediščine v Sloveniji, v: AR Arhitektura raziskave/Architecture Research 2004/1, Ljubljana.• Gabrijelčič, P. 2002. Rurizem in ruralna arhitektura, Univerza v Ljubljani, Ljubljana.• Guidani, M. ed 1990 Architecture vernaculaire, Presses polytechniques Romandes, Lausanne.• Juvanec, B. 2001. Six Thousand Years and more of Corbelling, UNESCO Congress, Paris.• Juvanec, B. 2003. Voutement, revutement: L'Architecture vernaculaire, Paris.• Langhein, J. 2004. Was ist Proportion, Ordo et Mensura Congress, Berlin.• Oliver, P. 2003. DWELLINGS, Phaidon, New York.• Parker, M. 1997. Architecture and Order, Routledge, London.
6. Teaching methods:	Lectures and thematic, practical seminar, with final research/scientific paper; regulated survey between historicism and high technologies is proof for practical results in reality.
7. Assessment methods:	<ul style="list-style-type: none">• evaluation of individual seminar work (theoretical or practical) as the result of discussions between the lecturer and the student,• no further subdivision of credits is envisaged,• grading scale: pos. (6-10), neg. (1-5).
8. References (3-5):	<ul style="list-style-type: none">• JUVANEC, Borut. Vernakularna arhitektura ali kompleksnost preprostosti = Vernacular architecture or the complexity of simplicity. AR, Arhit. razisk. (Tisk. izd.). [Tiskana izd.], 2004, [Št.] 1, str. 16-21, ilustr.• JUVANEC, Borut. <i>Primitive in science and science in primitive architecture</i>. Cardiff: Wellsh School of Architecture, 2004.• JUVANEC, Borut. Arhitektura javnega prostora : razvoj oblike prvih arhitektur. V: SRAKAR, Andrej (ur.). <i>Kiparstvo v javnem prostoru : zbornik besedil ob deseti obletnici Slovenske kiparske razstave</i>. Ljubljana: Zavod za kiparstvo, 2006, str. 11-15, ilustr.• JUVANEC, Borut. <i>Kozolec</i>. 1. izd. Ljubljana: i2: Fakulteta za arhitekturo, 2007. 116 str., ilustr. ISBN 978-961-6348-36-2.• JUVANEC, Borut. <i>Hut of Extremadura : jewel in stone = Choso de Extremadura : joya en piedra</i>. Extremadura: Arte, 2008. 120 str., ilustr. ISBN 978-84-612-1956-8.

1. Course title:	Human Environment Anthropology			
Course coordinator:	doc. dr. Igor Toš			
Lecturers:	doc. dr. Igor Toš			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<ul style="list-style-type: none"> elementary philosophical and cultural anthropology, main rules of interaction, interdependence and co-evolution of human being and the anthropogenous material-spatial environment elementary basics of systems theory/methodology
4. Contents (Syllabus outline):	<ul style="list-style-type: none"> introduction to basic rules of interaction, interdependence and co-evolution of human being and the anthropogenous material and spatial environment human being as an „animal symbolism“, a biophysical and symbolical being human environment as a biophysical and symbolical milieu main concepts in semiotic and information theory origins of architecture and origins of city/anthropogenic landscape notions of contemporariety interdisciplinary structure of architectural anthropology methodology of interdisciplinary research, foundations of systems methodology

● interdisciplinary module

5. Literature:	<ul style="list-style-type: none">• Amerlinck, Mari-Hose: Architectural Anthropology. Bergin & Garvey, 1992; (selected chapters).• Bollnow, Otto Friedrich: Mensch und Raum. 7. ed. Stuttgart: Kohlhammer, 1994.• Cassirer, Ernst: Ogled o čovjeku, Uvod u filozofiju ljudske kulture. Zagreb: Naprijed, 1978; (selected chapters).• Egenter, Nold: Architectural Anthropology (serija, vol. 1). Lausanne: Structura mundi, 1992.• Gehlen, Arnold: Čovjek, Njegova priroda i njegov položaj u svijetu. Sarajevo, V. Masleša, 1990; (selected chapters).• Low, Setha M., Lawrence-Zuniga, Denise: The Anthropology of Space and Place: Locating Culture (Blackwell Readers in Anthropology). Blackwell Publishers, 2003.• Melhuish, Clare: Architecture & Antropology. (UK): Academy Group Ltd, (Academy Editions) 1996.• Norberg-Schulz, Christian: Intention und Methode in der Architektur. Der Architekt, 3/1967, p. 218-225.• Toš, Igor: Arhitektura in sistemologija (doktorska disertacija), izbrana poglavja. Ljubljana: Fakulteta za arhitekturo, 2003.• Widler, Anthony: Architectural Uncanny Essays in Modern Unhomely. MIT Press, 1992.
6. Teaching methods:	Combination of various methods, depending on the addressed issues and the learning process: lectures, research seminars, cooperative learning/teaching, guided individual study, individual assignments, essay writing, project work, portfolio conferences, workshops.
7. Assessment methods:	<ul style="list-style-type: none">• scientific paper,• no further subdivision of credits is envisaged,• grading scale: positive 6-10, negative: 1-5.
8. References (3-5):	<ul style="list-style-type: none">• TOŠ, Igor. Majstor metode, Kroz jedan isječak o arhitektonskom nazoru Zdenka Strižića. Čovjek i prostor, 5-8/1997, vol. 44, no. 516-519, p. 56-57.• TOŠ, Igor. Mjesto i doprinos Zdenka Strižića arhitektonskoj teoriji u Hrvatskoj. Znanstveni referat. Simpozij: Arhitektonska teorija u Hrvatskoj u XX. stoljeću, Zagreb, 9/1997. Tiskano v: Arhitektura, 1/1998, vol. 51, no. 214, p. 166-172, ISSN 0350-3666.• TOŠ, Igor. Aktualnost hannoverskih principa, Podsjetnik pred EXPO 2000. Čovjek i prostor, 1-2/2000, vol. 47, no.548-549, p. 20.

1.				
Course title:	Architectural Psychology			
Course coordinator:	prof. dr. Marko Polič			
Lecturers:	prof. dr. Marko Polič			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2.	
Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3.	
Objectives of the course and intended learning outcomes (competences):	<ul style="list-style-type: none"> • students gain knowledge on psychological aspects of relations between people and built environment and the psychological background of human behaviour in the environment • they are taught how to consider psychological principles in environmental design and consider the influences of different interventions to the behaviour and response of people
4.	
Contents (Syllabus outline):	<ul style="list-style-type: none"> • introduction: definition of the domain of architectural psychology; relations between human and environment; methods of architectural psychology; evaluation after application • sensual effects: light and colours; darkness; sound and noise; temperature; scent and smell • social processes and environment: privacy; territorial behaviour; crowd; personal space; behaviour pattern; neighbourhoods and city; socio-spatial forms; social and socially indifferent and socially oriented environment; management of the environment; ethical viewpoints related to environment • recognition of the environment: characteristics of environment perception; orientation; aesthetic of the environment; conception of place and significances in the environment • environment problems in settlements: pollution; littering and rubbish dumps; vandalism; crime and its prevention; traffic environment; energy and energy saving • accidents: recognition of treats, behaviour in dangerous situation, fires, evacuation of buildings • psychology and planning: differences between users; investors and planers; adjustment processes; negotiation about common goals, contacts with general public • specifics of behaviour and experiencing in some special environments: schools, playgrounds, streets, markets, stadiums, hospitals, restaurants, apartments, settlements, environment for habitants with special needs etc • environment for everyone: disabled, blind, children and seniors

● interdisciplinary module

5. Literature:	<ul style="list-style-type: none">• Bechtel R.B. (1997), <i>Environment & Behaviour</i>, London: SAGE. 679 str.• Bell P.A., Greene T.C., Fisher J.D. & Baum A. (2001), <i>Environmental Psychology</i>, Fort Worth: Harcourt College Publishers, 634 str.• Kopec D. (2006). <i>Environmental Psychology for Design</i>, New York: Fairchild Publ. Inc., 367 str.
6. Teaching methods:	Lectures, field work, research seminar.
7. Assessment methods:	<ul style="list-style-type: none">• positive research seminar grade is required before oral/written exam,• no further subdivision of credits is envisaged,• grading scale: pos. (6–10), neg. (1–5).
8. References (3-5):	<ul style="list-style-type: none">• POLIČ, M., MARUŠIČ, J., KOS, D., NATEK, K. People-environment studies in Slovenia : past and prospects. V: / Bob Martens & Alexander G. Keul, editors. <i>Designing social innovation</i> - Toronto : Hogrefe, cop. 2005. – ISBN 0-88937-291-8. - Str. 17-26.• POLIČ, M. Landscape elements in the mental map of Slovenia. <i>Landscape 21</i> (Ljubl.), 2004, vol. 1, nr. 1, str. 19-28, ilustr.• POLIČ, M., REPOVŠ, G. Cognitive map of Slovenia : spatial representations and identity. <i>Psychol. Beitr. (Lengerich)</i>, 2004, vol. 46, suppl. 1, str. 65-88

1.				
Course title:	Art History			
Course coordinator:	prof. dr. Peter Krečič			
Lecturers:	prof. dr. Peter Krečič			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2.	
Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3.	
Objectives of the course and intended learning outcomes (competences):	<ul style="list-style-type: none"> • acquiring new knowledge in the field of art history • in-depth insights into historical and art historical theoretical issues
4.	
Contents (Syllabus outline):	<ul style="list-style-type: none"> • art history and history of cultural formations thru the prism of architecture and its theory • selected art history topics from different historical periods, theory of art, architectural theories • theories of avant-garde and modernism

● interdisciplinary module

5. Literature:	<ul style="list-style-type: none">• Izidor Cankar: <i>Uvod v umevanje likovne umetnosti; Sistematika stila</i> (Ljubljana, Slovenska matica, Ljubljana 1926 in 1959; Karantanija 1995).• Horst Waldemar Janson: <i>History of Art</i>, (New York, Harry N. Abrams 1969).• Arnold Hauser: <i>Socialna zgodovina umetnosti in literature, I - II</i> (Ljubljana, Cankarjeva založba 1961).• Sigfried Giedion: <i>Space, Time and Architecture. The Growth of a New Tradition</i> (Cambridge, MA, Harvard University Press 1984).• Nicolaus Pevsner: <i>Oris evropske arhitekture</i> (Ljubljana, DZS 1966).• Bruno Zevi: <i>Pogledi na arhitekturo</i> (Ljubljana, Cankarjeva založba in Ljudska pravica 1959).• Lewis Mumford: <i>Mesto v zgodovini I - II</i> (Ljubljana, DZS 1969).• France Stele, <i>Oris zgodovine umetnosti pri Slovencih</i>, Ljubljana 1924, (Mladinska knjiga 1966)• Vojeslav Mole: <i>Umetnost južnih Slovanov</i> (Ljubljana, Slovenska matica 1965).• Emilijan Cevc, <i>Slovenska umetnost</i> (Ljubljana, Mohorjeva družba 1966).• Nace Šumi, <i>Pogledi na slovensko umetnost</i> (Ljubljana, Partizanska knjiga 1975).
6. Teaching methods:	Essay/seminar work written on the topic of the selected theme.
7. Assessment methods:	<ul style="list-style-type: none">• evaluation of individual seminar work/essay or oral exam,• no further subdivision of credits is envisaged,• grading scale: pos. (6–10), neg. (1–5).
8. References (3-5):	<ul style="list-style-type: none">• KREČIČ, Peter. Slovenski konstruktivizem in njegovi evropski okviri. Maribor: Obzorja, 1989. 100 str., [32] str. pril. ISBN 86-377-0430-1.• KREČIČ, Peter. Jože Plečnik. [Ljubljana]: Državna založba Slovenije, 1992. 479 str., ilustr. ISBN 86-341-0649-7.• KREČIČ, Peter. Avgust Černigoj: vzporednice, razhajanja, pomen. Razgledi (Ljublj.), 14. apr. 1999, št. 8, str. 26-27, ilustr.• KREČIČ, Peter. Plečnik : lettura delle forme. Milano: Jaka Books, 1993. 256 str., ilustr. ISBN 88-16-60123-X.• KREČIČ, Peter. Plečnik in ekspresionizem : ob 130. obletnici Plečnikovega rojstva, (Zbirka Vizure). Ljubljana: Nova revija, 2002. 95 str., ilustr. ISBN 961-6352-44-X.

1. Course title:	Systems of Plastic Arrangements			
Course coordinator:	prof. dr. Jaka Bonča			
Lecturers:	prof. dr. Jaka Bonča			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<ul style="list-style-type: none"> students acquire the knowledge that can be used as aid system for plastic - design decisions
4. Contents (Syllabus outline):	<p>Planning of composition or a system that is based on a grid or, exceptionally, on some other form of repetition. Systems are nothing but mathematical isometric projections (on a plane). Isometric projections are usually understood as mirroring (there are several types of mirroring), a vortex, repetition or the like. Through the primary pattern the student realize the meaning of dimensions, modules, scales, ratios and proportions.</p> <p>Standard elements function as representative elements. The number of elements in a set, the number of elements in all sets, the number of sets, the size of graphics. Each element is in terms of quantity equally distributed in all sets and each set is, in terms of quantity, equally represented through the graphics as a whole. The size of an individual element equals to one unit.</p>
5. Literature:	<ul style="list-style-type: none"> Bonča Jaka: Gospodar sistema - Lord of the System, FA in ŠRS, Ljubljana 2003 Milan Butina: Mala likovna teorija; Debora, Ljubljana, 2000. Jay Kappraff: Connections The Geometric Bridge Between Art and Science; World Scientific, New Jersey 2001. Stephen Wilson: Information arts; The MIT Press, Cambridge, 2002.

●● interdisciplinary module

6.	Teaching methods:	Individual practical work with theoretical reflection, lectures ex cathedra.
7.	Assessment methods:	<ul style="list-style-type: none">• evaluation of individual plastic project,• no further subdivision of credits is envisaged,• grading scale: pos. (6–10), neg. (1–5).
8.	References (3-5):	<ul style="list-style-type: none">• BONČA Jaka: Gospodar sistema - Lord of the System, FA in ŠRS, Ljubljana 2003 ISBN 961-6160-45-1.• BONČA Jaka. Barva, prostor in gibanje v arhitekturi. Anthropos (Ljublj.), 25, št. 5/6 (1993), str. 25-58.• BONČA Jaka. Levo - desno: ob delu Beti Bricelj = Left - right: on the work of Beti Bricelj. Likov. besede, 2005, št. 73/74, str. 143-147, ilustr.

1. Course title:	Architectural Versus Fine Art Relations			
Course coordinator:	doc. dr. Peter Marolt			
Lecturers:	doc. dr. Peter Marolt			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<ul style="list-style-type: none"> • The purpose of the course is to give knowledge about all methodological background needed for the research of relations between form and content, between space and society in order to expose the relation between form and architectural form, between tradition and invention and to re-establish artistic discourse, researching the relation between type and archetype and between single (i.e. oneness) and the whole. It also gives the knowledge about understanding axiomatic structures, researching interdependence of entities in order to exclude the role of antithesis. • The course makes possible complex understanding of design starting points and acquaints a student with cultural starting points and content of the architectural space to parallel the points of view with each other. Theory makes possible a transfer of research achievements into contemporary architectural design and also the critical evaluation of spatial structure(s) that enable the understanding of spatial accordance with starting points and of the equilibrium in spatial design. • Competences: formal analogy, contemporary art in relation to contemporary architecture, verbal and visual.
4. Contents (Syllabus outline):	<p>The course opens thorough view to legitimacy of architectural space and spatial forms regarding different levels that art and architecture depend on. It stimulates expertness in communication and communication with spatial entity. It lays a special stress on uniting different media and different kinds of visual arts, bring face to face normative regulations (axioms) and individual interpretation. Indirectly we seek the framework for new forms of residence (being, existence) that in architectural history already existed to a high degree. We confront students with the relation between form and the product of the society, knowledge/understanding, order/chaos, revolution/evolution, architecture/sculpture, etc.</p>

●● interdisciplinary module

5. Literature:	<ul style="list-style-type: none">• Bachelard, G. (2001) <i>Poetika prostora</i>. Študentska založba, Ljubljana, 264 str.• Ching DK, F. (1979) <i>Architecture: Form, Space & Order</i>. Van Nostrand Reinhold Company, New York, 394 str.• Černjihov, J. (1989) <i>Konstrukcije arhitektonskih i mašinskih formi</i>. Gradjevinska knjiga, Beograd, 208 str. (Prvič izdalo Leningrajsko društvo arhitektov, 1931)• Tanizaki, J. (2002) <i>Hvalnica senci</i>. Študentska založba, Ljubljana, 90 str.• Tschumi, B. (1995) <i>Questions of Space</i>. Architectural Associations Publications, London, 107 str.• Tschumi, B. (1996) <i>Architecture and Disjunction</i>. The MIT Press, Cambridge, Massachusetts, London, 268 str.• Tschumi, B, Berman, M, Kim, J. (2003) <i>Index Architecture: a Columbia Book of Architecture</i>. The MIT Press, Cambridge, Massachusetts, London, 302 str.
6. Teaching methods:	Lectures and discussion with the students, short workshops.
7. Assessment methods:	<ul style="list-style-type: none">• short seminar research paper,• no further subdivision of credits is envisaged,• grading scale: pos. (6–10), neg. (1–5).
8. References (3-5):	<ul style="list-style-type: none">• MAROLT, Peter. <i>Arhitekturna vsebina med abstraktnim in konkretnim = Architectural content between the abstract and real</i>. <i>AR, Arhit. razisk. (Tisk. izd.)</i>. [Tiskana izd.], 2005, [Št.] 1, str. 20-25, ilustr.• MAROLT, Peter. <i>Bivališče med idealom, konstrukcijo in uporabnostjo = The dwelling, between the ideal, structure and utility</i>. <i>AR, Arhit. razisk. (Tisk. izd.)</i>. [Tiskana izd.], 2006, [Št.] 1, str. 28-33, ilustr.• MAROLT, Peter. <i>Senčna Japonska in celovito dojetje entitet = Shaded Japan and comprehensive entity perception</i>. <i>AR, Arhit. razisk. (Tisk. izd.)</i>. [Tiskana izd.], 2007, [Št.] 1, str. 5-12, ilustr.• MAROLT, Peter. <i>Arhitekturni prostor kot likovni medij = Architectural space as artistic medium</i>. <i>AR, Arhit. razisk. (Tisk. izd.)</i>. [Tiskana izd.], 2003, [Št.] 1, str. 40-45, ilustr.• MAROLT, Peter. <i>Spomini v prostoru - konkretno v abstraktnem : risba in študijska maketa med konkretno in abstraktno umetnostjo</i>. Sarajevo, 2003.

1.				
Course title:	Colours and Space			
Course coordinator:	prof. Jurij Kobe			
Lecturers:	prof. Jurij Kobe			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2.	
Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3.	
Objectives of the course and intended learning outcomes (competences):	<ul style="list-style-type: none"> • principles related to composition of colours • principles related to the presence of colour in living space • overview of different types of living spaces and their equipment with their colour analysis • overview of different effects of colouring techniques
4.	
Contents (Syllabus outline):	<ul style="list-style-type: none"> • detailed overview of approaches and methods for colour design • colour design as a reflection of other professions from the perspective of the methods dealt with • professional profile as a starting point of possible methodological contributions • proposal of methodological developments

●● interdisciplinary module

5. Literature:	<ul style="list-style-type: none">• Rupprecht Matthei: <i>Goethes Farbenlehre</i>, 1970, and later, Otto Maier Verlag Ravensburg• Bruno Taut: <i>Poziv k barviti gradnji</i>, 1919.• Paul Klee: <i>Prispevki k likovnemu oblikovanju</i>; Tiskarna Mladinska knjiga, 2002 (ali drugačna izdaja, zapisi predavanj 1921/22 in dodano)• Vassili Kandinsky: <i>Point et ligne sur plan. Contribution a l'analyse des elements de la peinture</i>, Editions Gallimard, 1991 (ali drugačna izdaja, orig. 1926)• Laszlo Moholy-Nagy: <i>The new Vision, Fundamentals of Bauhaus Design, Painting, Sculpture and Architecture</i>, (1983), Dover, NY, 1975• dr. Anton Terstenjak: <i>Človek in barve</i>; DDU Univerzum, Ljubljana, 1978• Johannes Itten: <i>Umetnost barve</i>; prev. in samozal. Rudi Reichmann, jesenice, 1999• Munsell: <i>Book of Colour</i>, Macbeth Devision Corporation, 1976, Baltimore, Maryland, USA• Milan Butina, <i>Elementi likovne prakse</i>, Mladinska knjiga, 1982• Rudolf Arnheim: <i>Umetnost i vizuelno opažanje</i>; Psihologija stvaralačkog gledanja, Univerzitet umetnosti, Beograd, 1981 (orig. <i>Art and Visual Perception; A Psychology of Creative Eye</i>, 1954)• John Gage: <i>Colour and Culture. Practice and Meaning from Antiquity to Abstraction</i>, Thames&Hudson, London, 1995
6. Teaching methods:	Combination of contemporary didactic methods, from lectures to individual study-presentations and e-learning options; round tables with invited guests; workshops with case studies; organized together with other elective courses, or, upon the candidate's agreement; individual consultancy.
7. Assessment methods:	<ul style="list-style-type: none">• evaluation of individual seminar work, its presentation and discussion,• no further subdivision of credits is envisaged,• grading scale: pos. (6–10), neg. (1–5).
8. References (3-5):	<ul style="list-style-type: none">• KOBE, Jurij. Upodobljeni čas. V: PAJAGIČ BREGAR, Gojka, KOBE, Jurij. <i>Tapiserija Štirje letni časi : razstava ob konserviranju in restavriranju tapiserije arhitekta in akademskega slikarja Borisa Kobeta, izdelane za ljubljansko Mestno hišo, [v atriju Narodnega muzeja Slovenije od 5. do 21. junija 2002]</i>. Ljubljana: Narodni muzej Slovenije, 2002, str. 7-11, ilustr.• KOBE, Jurij. Skrbno izbrana barvna lestvica, Agronomska fakulteta v Zagrebu, <i>ORIS</i>, 20, 2003, str.134-143., ilustr.• KOBE, Jurij. Scena Mete Hočevar. V: HOČEVAR, Meta. <i>Prostori igre : 1972-2005 : [Mestna galerija Ljubljana, 19. 12. 2005-23. 1. 2006]</i>. Ljubljana: Mestna galerija, 2006, str. 20-27, ilustr.

1.				
Course title:	Lighting in Architecture and Urban Environments			
Course coordinator:	doc. dr. Tomaž Novljan			
Lecturers:	doc. dr. Tomaž Novljan			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2.	
Prerequisites:	<ul style="list-style-type: none"> for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3.	
Objectives of the course and intended learning outcomes (competences):	<p>Extensive knowledge on fundamentals in light, possibilities and restrictions of state-of-the-art lighting techniques and potential future light sources. Significance of the light as a form generator in space. Contributions of the day lighting design regarding disburdening of the electrical and other energy networks and environment protection. Research work on realistic feasibilities in restricting light pollution in the system of urban and non-urban areas. Research work on possibilities for usage of the elements of urban furniture and outdoor light sources.</p>
4.	
Contents (Syllabus outline):	<p>Basic physical properties of the light. Significance of the natural light during daytime and year cycle. Shade, shadow, refraction, absorption. Misunderstandings and errors about the lighting with electrical powered sources. Essential differences between indoor and outdoor lighting. THE Problem of the comparison between the designed/simulated and measured/achieved photometric quantities. Differences between quality and quantity of light. Light in the perception of the space. Colour light and light temperature. Light as a bearer of information. Special kinds of »invisible« light and its use. Dynamic lighting as a substitution for natural lighting. Sustainable lighting design in building. Light pollution. State-of-the-art lighting technology. Lighting in real versus lighting in virtual space. Challenges for lighting in future. Transport and storage of light. The role of a lighting designer in a building process. Lighting in underground and degraded housing areas.</p>

●● interdisciplinary module

5. Literature:	<ul style="list-style-type: none">• Ander, Greg, D., 2002: Daylighting - performance and design (2nd edition). Wiley, Hoboken, New Jersey.• Brandi, U. (ur.), 2007: Light for cities. Birkhauser, Basel.• Buonocore, P., Critchley, M. A., 2001: Tageslicht in der Architektur. Verlag Niggli, Sulgen.• Kramer, H., 2002: Licht: Bauen mit Licht. Rudolf Mueller GmbH, Koeln.• Santen, C., 2006: Lichtplanung im urbanen Kontext. Birkhauser, Basel.
6. Teaching methods:	Lectures, seminars, guest lectures, discussions on specific topics, workshops.
7. Assessment methods:	<ul style="list-style-type: none">• evaluation of seminar work or evaluation of project work,• no further subdivision of credits is envisaged,• grading scale: pos. (6–10), neg. (1–5).
8. References (3-5):	<ul style="list-style-type: none">• ZUPANČIČ STROJAN, Tadeja, ZBAŠNIK-SENEGAČNIK, Martina, NOVLJAN, Tomaž, FIKFAK, Alenka. Degradirana območja organizirane večstanovanjske gradnje med letoma 1945 in 1965 v Sloveniji: metodologija vrednotenja in prenove. Urbani izziv, 2002, let. 13, št. 2, str. 82-89.• NOVLJAN, Tomaž. Podzemni prostor/kibernetski prostor = Underground spaces/cybernetic spaces. Urbani izziv, 2000, let. 11, št. 2, str. 44-50, 153-156.• NOVLJAN, Tomaž. Slepa fasada kot element sooblikovanja mestnega prostora. Urbani izziv, 1999, let. 10, št. 2, str. 96-102.• NOVLJAN, Tomaž. Možnosti izboljšave ambienta za večjo varnost v dolgih cestnih predorih = Improvements of the ambience for achieving greater safety in long road tunnels: strokovni članek. Gradb. vestn., jun. 2002, letn. 51, str. 174-180, ilustr.• NOVLJAN, Tomaž. Svetloba je sooblikovalec podzemnega prostora. V: KOSTIOV, Leon (ur.), LIKAR, Jakob (ur.). Zbornik referatov. V Ljubljani: Društvo za podzemne in geotehnične konstrukcije: = Society for underground and geotechnical constructions: Univerza, [2004], str. 317-323, ilustr.

1. Course title:	Abstract Spatial Transformations Tools			
Course coordinator:	doc. dr. Tomaž Novljan			
Lecturers:	doc. dr. Tomaž Novljan			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<ul style="list-style-type: none"> understanding of the principles of the abstraction as one of the basic tools for architectural creativity ability of perception and recognition of natural patterns ability of reinterpretation of the perceived data and their transforming on the higher abstraction level understanding of the possibilities for designing new ambiantal quality
4. Contents (Syllabus outline):	<p>Spatial perception. Research and interrelations of space, abstraction, transformation, adaptation and their application in the creative process. The chaos theory and self-similarity. Basic conception of fractal theory and fractal geometry. Possible application in the design process. Ambient design in aggressive environments, habitats without direct connection to aboveground space. Transmission and adaptation of the impressions of the nature into the confined space. Color, pattern, light.</p>

●● interdisciplinary module

5. Literature:	<ul style="list-style-type: none">• Batty, M., 1994: <i>Fractal cities: a geometry of form and function</i>. Academic Press, Boston.• Bovill, C., 1996: <i>Fractal geometry in architecture and design</i>. Birkhauser, Boston.• Gausa, M. et al., 2003: <i>The Metapolis Dictionary of Advanced Architecture</i>. Actar, Barcelona.• Gleick, J., 1988: <i>Chaos: making a new science</i>. Penguin, New York.• Hale, N.C., 1993: <i>Abstraction in art and nature</i>. Dover Publications, New York.• Jencks, C., 1997: <i>The architecture of the jumping universe</i>. Academy editions, London.• Van der Laan, Dom H., 1983: <i>Architectonic space</i>. E. J. Brill, Leiden.
6. Teaching methods:	Regarding the number of attending students: common lectures or individual consultations. Individual communication via e-mail. Consultations regarding the individual seminar work.
7. Assessment methods:	<ul style="list-style-type: none">• evaluation of individual seminar work, its presentation and discussion,• no further subdivision of credits is envisaged,• grading scale: pos. (6–10), neg. (1–5).
8. References (3-5):	<ul style="list-style-type: none">• NOVLJAN, Tomaž. Podzemni prostori Ljubljane: iluzija ali resničnost : načrtovanje konstrukcij in vzdrževanje podzemnih prostorov. V: KOSTIOV, Leon (ur.). <i>Zbornik referatov</i>. Ljubljana: Univerza [etc.], 2002, str. 185-195,• NOVLJAN, Tomaž. Podzemni prostor/kibernetski prostor = Underground spaces/cybernetic spaces. <i>Urbani izziv</i>, 2000, let. 11, št. 2, str. 44-50, 153-156.• NOVLJAN, Tomaž. Oblikovanje podzemnih ambientov = Designing in underground environments. <i>AR, Arhit. razisk. (Tisk. izd.)</i>. [Tiskana izd.], 2001, [Št.] 1, str. 68-81, ilustr.• NOVLJAN, Tomaž. Svetloba je sooblikovalec podzemnega prostora. V: KOSTIOV, Leon (ur.), LIKAR, Jakob (ur.). <i>Zbornik referatov</i>. V Ljubljani: Društvo za podzemne in geotehnične konstrukcije: = Society for underground and geotechnical constructions: Univerza, [2004], str. 317-323, ilustr.• NOVLJAN, Tomaž. Svetloba v "podzemlju". V: ORGULAN, Andrej (ur.). <i>Svetloba in okolje : zbornik : proceedings</i>. Maribor: Slovensko društvo za razsvetljavo, 2005, str. 37-48, ilustr.

1. Course title:	Interior and Furniture Design			
Course coordinator:	prof. Jurij Kobe			
Lecturers:	prof. Jurij Kobe			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<ul style="list-style-type: none"> • student gains an extensive knowledge of the most important design elements of interior and furniture, such as function, meaning and syntax and gives student the knowledge about their proper distribution in the interior and in the open space • the review of different types of interior spaces and their typical equipment: apartments and different elements of living spaces, working spaces, public spaces, open spaces, temporary structures etc • discovering of the design rules and composing of individual elements in space composition and its dialog related with different spaces; the examples and historical development of elements will be also given in connection with different chapters • revealing layers of architectural design; therefore the influence of function of the object or space, its physical structure as well as its meaning which is generated by its shape or element in space and time – to its design • understanding of composition rules related to forming of individual parts of equipment, compositions and interior spaces as well as their interconnection and relation to changing elements (installations), to the whole building or to the wider space where such elements or compositions are being installed • understanding the rules for using colours in the interior design
4. Contents (Syllabus outline):	<ul style="list-style-type: none"> • detailed overview of composition and design methods of mobile and fixed interior equipment, interior composition and design and placing of street equipment in the urban environment • interior/furniture design and understanding of used methods through a reflection of other field of professions • professional profile as a starting point of possible methodological contributions; proposal of methodological developments

●● interdisciplinary module

5.	
Literature:	<ul style="list-style-type: none">• Nicolaus Pevsner : The Outline of European Architecture, Penguin, 1943 (or newer edition)• ReynerBanham Theory and Design in the new Machine Age, Architectural press, London, 1960,• LeCorbusier: Vers une Architecture, Editions Vincent, Freal&Co, Paris, 1958• Kenneth Frampton: Modern Architecture, Thames & Hudson, 1980• Margarete Schutte – Lichotsky Soziale Architektur Zeitzeugin eines Jahrhunderts (Forschungsgruppe Schutte-Lihotzky, 1993 MAK, ISBN 3-900688-22-2) (or similar literature)• Sigfried Giedion: Raum Zeit Architctur, Birkhauser Verlag, 1976• Architectural Theory from the Renaissance to the Present, več avtorjev, Taschen, Koln, 2003 (or similar literature)• S,M,L,XL, OMA, Reem Koolhaas, Monacelli Press, NY 1995• Frank Whitford: Bauhaus. Thames &Hudson, 1994 (or similar literature)• Ulrich Conrads: Programmes and Manifestoes in twentieth Century Architecture, MIT Press, 1970
6.	
Teaching methods:	Combination of contemporary didactic methods, from lectures to individual study-presentations and e-learning options; round tables with invited guests; workshops with case studies; organized together with other elective courses, or, upon the candidate's agreement; individual consultancy.
7.	
Assessment methods:	<ul style="list-style-type: none">• evaluation of individual seminar work, its presentation and discussion,• no further subdivision of credits is envisaged,• grading scale: pos. (6–10), neg. (1–5).
8.	
References (3-5):	<ul style="list-style-type: none">• KOBE, Jurij. Vabilo na pogovor : Križajevo prisluškovanje pogovoru. <i>AB, Arhit. bilt.</i>, jul. 1998, let. 28, št. 139/140, str. 62-67, ilustr.• KOBE, Jurij. Tema v nadaljevanjih : Anton Lešnik, dve lekarni. <i>AB, Arhit. bilt.</i>, jul. 1999, letn. 29, št. 143/144, str. 34-37, ilustr.• KOBE, Jurij. O svetem v prostoru. <i>AB</i>, 151,152, 2001, str 92 – 93., ilustr.• KOBE, Jurij. Obnova Cekinovega gradu in njegova prenova za potrebe Muzeja novejše zgodovine v Ljubljani. V: URBANC, Nataša (ur.). <i>Slovenci v XX. stoletju : katalog stalne razstave</i>. Ljubljana: Muzej novejše zgodovine, 1999/2000, str. 13-18, ilustr.• KOBE, Jurij. Scena Mete Hočevar. V: HOČEVAR, Meta. <i>Prostori igre : 1972-2005 : [Mestna galerija Ljubljana, 19. 12. 2005-23. 1. 2006]</i>. Ljubljana: Mestna galerija, 2006, str. 20-27, ilustr.• KOBE, Jurij. L' architettura tra materia e progetto. V: GIRASANTE, Francesco (ur.), POTENZA, Domenico (ur.). <i>Dalla pietra all'architettura</i>. [Pescara]: Claudio Grenzi, 2006, str. 106-111, ilustr.

1. Course title:	Performative Design Strategies			
Course coordinator:	Assoc. Prof. Poul Henning Kirkegaard, PhD.			
Lecturers:	Assoc. Prof. Poul Henning Kirkegaard, PhD.			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<ul style="list-style-type: none"> The course explores the kinetic potential of design as media, wherein interactions with intelligent, responsive environments are examined. Focus will be on smart materials and performative systems that can sense external stimuli, and react adaptively by altering their inherent properties and form in a controlled and predictable manner.
4. Contents (Syllabus outline):	A selection of recent projects by designers that use smart materials and systems; students are expected to research these works in preparation for presenting their own design propositions for a responsive environment; the produced works will draw upon the differing skills of the participants and are expected to range from products and installations, to buildings, cities and landscapes.
5. Literature:	Branko Kolarević, Ali Malkawi. Performative Architecture: Beyond Instrumentality. Taylor&Francis, 2005.
6. Teaching methods:	Lectures, problem based learning and individual projects - research by design.

●● interdisciplinary module

7.

- Assessment methods:
- evaluation of project work,
 - no further subdivision of credits is envisaged,
 - grading scale: pos. (6–10), neg. (1–5).

8.

- References (3-5):
- SCHMIDT, Anne Marie Due ; KIRKEGAARD, Poul Henning. / From Architectural Acoustics to Acoustical Architecture Using Computer Simulation. I: Building Acoustics. 2005 ; vol. 12, nr. 2, s. 85-95
 - ANDERSON, Ida Kristina ; KIRKEGAARD, Poul Henning. / A Discussion of the Term Digital Tectonics. I: Digital Architecture & Construction 2006 : First International Conference on Digital Architecture & Construction : 19-21 September 2006, Seoul, Korea. School of Architecture & Architectural Engineering, University of Seoul, Korea : Wessex Institute of Technology, UK, 2006.
 - KLITGAARD, Jens ; KIRKEGAARD, Poul Henning ; MULLINS, Michael / On the Integration of Digital Design and Analysis Tools. I: Digital Architecture and Construction. WIT Press : Wessex Institute of Technology, UK, 2006. s. 187-196
 - WRABER, Ida Kristina ; KIRKEGAARD, Poul Henning ; STÆR, Lotte ; Vestergaard, Anne Nordahl. / A discussion of the Architectural Quality in Prefab Houses. I: Quality. Cardiff : Welsh School of Architecture, Cardiff University, 2007. s. 81

1. Course title:	Digital Methods and Presentations in Architecture			
Course coordinator:	prof. dr. Igor Kalčič			
Lecturers:	prof. dr. Igor Kalčič			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	The student: deepens the knowledge of/about contemporary digital methods and ways of presentation in architecture, their theoretical background and examples of practical usage; is able to use multimedia presentations in architecture and design; improves knowledge of virtual reality, augmented reality and mixed reality for use in architectural and design practice; deepens theoretical knowledge and the use of digital multimedia in the development of architectural ideas, from the sketch to realization of the project. Student acquires the knowledge for advanced practice in digital environments.
4. Contents (Syllabus outline):	Logical and effective use of digital multimedia through the whole planning/building process: from conception to realization of architectural ideas; methods, software and hardware needed for efficient work; web based technologies, multimedia databases in the field of architecture and tools that enable successful integration of work and communication across world wide web.
5. Literature:	<ul style="list-style-type: none"> Collin, S., 1995: Kako deluje multimedija (Naslov izvirnika: The way multimedia works. Prevod: P. Berden), DZS, Ljubljana Bertol, D., 1995: Designig Digital Space. John Wiley & Sons Inc., New York Bridges, A., Charitos, D., 1997: On Architectural Design in Virtual Environment, V: Design Studies I Perrella, S., 2000: Hypersurface Architecture: age of the Electronic Baroque. V: Blueprint, London Popper, F., 1993: The Art in the Electronic Age. Thames & Hudson, London

●● interdisciplinary module

6.	Teaching methods:	Consultations and exercises are exclusively in digital form with communication enhanced by use of 'www'. Individual consultations with students are expected on subjects related to doctoral thesis and its expected results.
7.	Assessment methods:	<ul style="list-style-type: none">• every student has to in whole or partly create his doctoral thesis with the aid of digital methods of presentation (if the contents demands or allows the usage of digital methods); otherwise the student makes the 'examination paper' with the use of digital presentation on agreed other subject• no further subdivision of credits is envisaged• grading scale: pos. (6–10), neg. (1–5)
8.	References (3-5):	<ul style="list-style-type: none">• KALČIČ, Igor. Teaching of computer presentations in architecture and graphic design at Faculty of Architecture in Ljubljana. <i>Prostor (Zagreb)</i>, 1998, letn. 6, št. 1-2, str. 95-102, ilustr.• KALČIČ, Igor. The taxonomy of geometry and graphics : [poglavje v članku]. <i>J. geom. graph.</i>, 1998, vol. 2, št. 2, str. 192.• KALČIČ, Igor. Multimedija v grafičnih prezentacijah arhitekture = Multimedia in graphic presentations of architecture. <i>AR, Arhit. razisk. (Tisk. izd.)</i>. [Tiskana izd.], 2001, [Št.] 1, str. 23-26, ilustr.• KALČIČ, Igor. Računalnik in metoda v arhitekturi. <i>AR, Arhit. razisk. (Tisk. izd.)</i>. [Tiskana izd.], 2002, [Št.] 1, str. 24-27, ilustr.• KALČIČ, Igor. Projektiranje na daljavo v arhitekturi : raziskava = Remote design in architecture : research. <i>AR, Arhit. razisk. (Tisk. izd.)</i>. [Tiskana izd.], 2003, [Št.] 1, str. 84-85, ilustr.

1. Course title:	Designing Virtual Environments			
Course coordinator:	prof. dr. Vassilis Bourdakis			
Lecturers:	prof. dr. Vassilis Bourdakis			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<ul style="list-style-type: none"> understanding of relations between physical and virtual environments ability of virtual space research by design understand the problems and particularities of digital spatial design students will familiarize themselves with the notion of interactive space design
4. Contents (Syllabus outline):	<ul style="list-style-type: none"> Cyberspace Virtual Reality Scope of application of synthetic environments Synthetic environments design principles Design Tools

●● interdisciplinary module

5. Literature:	<ul style="list-style-type: none">• Voigt, A., Martens, B. and Linzer, H. (2004) City Simulator - A Multi-dimensional VR-Simulation Environment, Architecture in the Network Society [22nd eCAADe Conference Proceedings / ISBN 0-9541183-2-4] Copenhagen (Denmark) 15-18 September 2004, pp. 586-592• Bourdakis, Vassilis and Charitos, Dimitris (eds.) (2006) Communicating Space(s), 24th eCAADe Conference Proceedings [ISBN 0-9541183-5-9], Volos (Greece) 6-9 September 2006, 914 p.• Abdellatif, R. and C. Calderon (2007) SecondLife: A Computer-Mediated Tool for Distance-Learning in Architecture Education?, Em'body'ing Virtual Architecture: The Third International Conference of the Arab Society for Computer Aided Architectural Design (ASCAAD 2007), 28-30 November 2007, Alexandria, Egypt, pp. 17-34• Wang, Xiangyu; Rui Chen (2008) The shape of sound: Using mixed REALITIES to bridge music and architecture, CAADRIA 2008 [Proceedings of the 13th International Conference on Computer Aided Architectural Design Research in Asia] Chiang Mai (Thailand) 9-12 April 2008, pp. 494-50• video clips, VR worlds, papers, refs, etc provided by the lecturer (see http://www.arch.uth.gr/en)
6. Teaching methods:	Combination of contemporary didactic methods, from lectures to individual study-presentations and e-learning options; round tables with invited guests; workshops with case studies; organized together with other elective courses, or, upon the candidate's agreement; individual consultancy (distant learning possible as well).
7. Assessment methods:	<ul style="list-style-type: none">• every student has to in whole or partly create his doctoral thesis with the aid of digital methods of presentation (if the contents demands or allows the usage of digital methods); otherwise the student makes the 'examination paper' with the use of digital presentation on agreed other subject• no further subdivision of credits is envisaged• grading scale: pos. (6-10), neg. (1-5)
8. References (3-5):	<ul style="list-style-type: none">• GAVRILOU E. and BOURDAKIS V. (2003) "The Reconstruction of Spatial Meaning: The Redefinition of the 'Architectural Elements' and the Primary Structures of 'Embodied Experience' ", In AEIXΩΠΟΣ, 2(1).• TSANGRASSOULIS A. and BOURDAKIS V. (2003) 'Comparison of radiosity and raytracing techniques with a practical design procedure for the prediction of daylight levels in atria', In Renewable Energy, 28 (13): 2157-2162.• TSANGRASSOULIS A., GAVRILOU E. and BOURDAKIS V. (2004) "Genetically Modified Buildings?" in Metalocus 15, pp70-77.• BOURDAKIS V. (2005) "Virtual Urban Models and their Planning Applications", IMEROS Vol. 5.• TSANGRASSOULIS A., BOURDAKIS V., GEROS V. and SANTAMOURIS M. (2006) A genetic algorithm solution for the design of slat-type blinds, In Renewable Energy Vol.31, pp.2321-2328.

1. Course title:	Digital Design Methods			
Course coordinator:	doc. dr. ir. Henri Achten			
Lecturers:	doc. dr. ir. Henri Achten			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<ul style="list-style-type: none"> • knowledge acquired in the field of design methodology • building of framework to locate design methods • basic knowledge of engineering design methods • knowledge of architectural design methods • hands-on experience with several digital design methods • ability to assess best use of a design method • ability to search and find appropriate design method in a design process • ability to properly use a design method • ability to incorporate design methods in the design process
4. Contents (Syllabus outline):	<ul style="list-style-type: none"> • into the minds of designers: how designers think • the science of the artificial • digital methods of design: architectural, engineering ... • developments in design methodology

●● interdisciplinary module

5. Literature:	<ul style="list-style-type: none">• Jones, J.C. (1980). Design methods – seeds of human futures.• Lawson, B. (1990). How designers think – The design process. Demystified.• Simon, H. (1996). The sciences of the artificial.• Roozenburg, N. and Eekels, J. (1995). Product design: fundamentals and methods.• Cross, N. (2000). Engineering design methods.• Schon, D.A. (1991). The reflective practitioner.
6. Teaching methods:	Combination of contemporary didactic methods, from lectures to individual study-presentations and e-learning options; round tables with invited guests; workshops with case studies; organized together with other elective courses, or, upon the candidate's agreement; individual consultancy (distant learning possible as well).
7. Assessment methods:	<ul style="list-style-type: none">• acquired skills of the students will be assessed through project based exercises which need to be completed successfully• no further subdivision of credits is envisaged• grading scale: pos. (6–10), neg. (1–5)
8. References (3-5):	<ul style="list-style-type: none">• ACHTEN, Henri H. (1997) Generic representations : an approach for modelling procedural and declarative knowledge of building types in architectural design , Eindhoven University of Technology• ACHTEN, H.H. (2002) Requirements for Collaborative Design in Architecture, TIMMERMANS, Harry (Ed.), Sixth Design and Decision Support Systems in Architecture and Urban Planning - Part one: Architecture Proceedings Avegoor, the Netherlands), 2002• ACHTEN, Henri H. (2003) New Design Methods for Computer Aided Architectural Design Methodology Teaching, International Journal of Architectural Computing vol. 1 - no. 1• DE VRIES, Bauke; ACHTEN, Henri; ORZECZOWSKI, Maciej; TAN, Amy; SEGERS, Nicole; TABAK, Vincent; JESSURUN, Joran; COOMANS, Marc (2003) The Tangible Interface: Experiments as an Integral Part of a Research Strategy, International Journal of Architectural Computing vol. 1 - no. 2• Pranovich, Slava; ACHTEN, Henri; de Vries, Bauke; van Wijk, Jack (2005) Structural Sketcher: Representing and applying well-structured graphic representations in early design, International Journal of Architectural Computing vol. 3 - no. 1, 75-92

1. Course title:	Programming of Architectural Forms			
Course coordinator:	prof. dr. José Pinto Duarte			
Lecturers:	prof. dr. José Pinto Duarte			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<p>Students acquire theoretical knowledge and the basic skills for the research of computational aspects of architectural form performing. Students are introduced to the basic paradigms for encoding architectural knowledge and computing with architectural form. Students are also introduced to the basic constructs of computer programming using a scripting language within a CAD application. Students are expected to acquire the basic skills required for developing their own design tools. Students are asked to select a class of forms and encode them into a computer program.</p>
4. Contents (Syllabus outline):	<p>The course introduces the theoretical and practical fundamentals for the exploration of the computational aspects or architectural knowledge and form. The theoretical component addresses:</p> <ul style="list-style-type: none"> the basic paradigms for developing generative systems including parametric design, shape grammars, cellular automata... and the basic programming constructs such as symbolic expressions, control structures, cyclic functions, data structures ... <p>The practical consists of the basics of the scripting language used and provides the required support for students to develop the exercises/projects.</p>

●● interdisciplinary module

5.	
Literature:	<p>Basic:</p> <ul style="list-style-type: none">• The Art of Computer Graphics Programming, William Mitchell, Robin Liggett, and Thomas Kvan., Van Nostrand Reinhold, 1987.• The Electronic Design Studio, Malcolm McCullough, William Mitchell and Patrick Purcell, Ed. MIT press. 1990.• The Logic of Architecture, William Mitchell, MIT press. 1990.• Autolisp Programming: Principles and Techniques, Rod R. Rawls, Mark A. Hagen, Goodheart Wilcox Company, 1998. <p>Additional:</p> <ul style="list-style-type: none">• Digital Tectonics, Neil leach, David Turnbull, Chris Williams, Wiley-Academy 2004.• Architecture in the Digital Age: Design and Manufacturing, Branko Kolarevic, Spon Press 2003.• Automated Fabrication, Marshall Burns, Prentice-Hall, New Jersey, 1995.• Introduction to shape and shape grammars, Stiny G, Environment and Planning B: Planning and Design 7 343-351, 1980.• A History of Architecture on the Comparative Method, for students, craftsmen, and amateurs, 15th edition, Sir Banister Flight Fletcher. London: Batsford, 1950.• Formal Design in Renaissance Architecture from Brunelleschi to Palladio, Michele Furnari, New York: Rizzoli, 1995.
6.	
Teaching methods:	<p>The course starts with an opening lecture and is then divided into five modules. Each module includes a lecture, followed by an explanation of concepts and a practical exercise. The course ends with a final lecture a presentation of work by the students.</p> <p>It is run as a combination of contemporary didactic methods, from lectures to individual study-presentations and e-learning options; round tables with invited guests; workshops with case studies; organized together with other elective courses, or, upon the candidate's agreement; individual consultancy (distant learning possible as well).</p>
7.	
Assessment methods:	<ul style="list-style-type: none">• evaluation of practical work/exercises: 5 * 13% = 65% and evaluation of the final project: 35%• no further subdivision of credits is envisaged• grading scale: pos. (6–10), neg. (1–5)
8.	
References (3-5):	<ul style="list-style-type: none">• WANG, Yufei and DUARTE, José Pinto (2002) Automatic generation and fabrication of designs, Automation in Construction 11 (3) (2002) pp. 291-302• HEITOR, Teresa V.; DUARTE, José P.; PINTO, Rafaela M. (2004) Combing Grammars and Space Syntax: Formulating, Generating and Evaluating Designs, International Journal of Architectural Computing vol. 2 - no. 4, 492-515• BENTO, Joao, DUARTE, Jose P., HEITOR, Manuel V. Heitor, MITCHELL, William J. (eds.) (2004). Collaborative Design and Learning: Competence Building for Innovation (International Series on Technology Policy and Innovation). Praeger Publishers, 408 p.• DUARTE, José Pinto, DUCLA-SOARES, Gonçalo and SAMPAIO, A. Zita (Eds.) (2005) Digital Design: The Quest for New Paradigms, 23rd eCAADe Conference Proceedings [ISBN 0-9541183-2-4], Lisbon (Portugal) 21-24 September 2005, 880 p.

1.				
Course title:	Digital Fabrication			
Course coordinator:	prof. dr. José Pinto Duarte			
Lecturers:	prof. dr. José Pinto Duarte			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2.	
Prerequisites:	<ul style="list-style-type: none"> for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3.	
Objectives of the course and intended learning outcomes (competences):	<ul style="list-style-type: none"> The student is able to use the computer aided design and fabrication in an advanced manner. With these tools he is able to address complex problems and develop innovative solutions. The student understands and reflects the role of digital media in the integration of design and construction. In the proposed approach the use of the computer is not faced as a mere electronic version of traditional drafting media, but as a tool that creates new opportunities for architectural and urban design. The course introduces the basics of advanced geometric modeling and rapid prototyping and, in a smaller extent, virtual reality and remote collaboration.
4.	
Contents (Syllabus outline):	<p>The course includes a theoretical and practical module. The theoretical module consists of:</p> <ul style="list-style-type: none"> advanced geometric modelling computer aided manufacturing virtual reality and remote collaboration <p>The practical module addresses the use of CAD/CAM tools and processes described in the theoretical module, namely, subtractive, additive, cutting, and forming processes. The goal is to use these tools for solving a complex problem, eventually in collaboration with the industry. Possible topics are the mass customization of housing, the design and production of complex forms etc.</p>

●● interdisciplinary module

5.	
Literature:	<p>Basic:</p> <ul style="list-style-type: none">• The Electronic Design Studio, Malcolm McCullough, William Mitchell and Patrick Purcell, Ed. MIT Press. 1990.• The Logic of Architecture, William Mitchell, MIT Press. 1990 <p>Additional:</p> <ul style="list-style-type: none">• Automated Fabrication, Marshall Burns, Prentice-Hall, New Jersey.• Digital Tectonics, Neil leach, David Turnbull, Chris Williams, Wiley-Academy 2004.• Architecture in the Digital Age: Design and Manufacturing, Branko Kolarevic, Spon Press 2003.• Duarte, J.P. e Y. Wang, Automatic Generation and Fabrication of Designs, in Automation in Construction, 11/ 3 pp 291-302, Elsevier Science, 2002.• Bento, J.; Duarte, J.P.; Heitor, M.; Mitchell, W.J.; (eds.) Collaborative Design and Learning, Praeger Publishers, CT, U.S.A., 2004.
6.	
Teaching methods:	<p>The course starts with an opening lecture and then it is divided into five modules. Each module includes a lecture, followed by an explanation of concepts and a practical exercise. The course ends with a final lecture a presentation of work by the students.</p> <p>It is run as a combination of contemporary didactic methods, from lectures to individual study-presentations and e-learning options; round tables with invited guests; workshops with case studies; organized together with other elective courses, or, upon the candidate's agreement; individual consultancy (distant learning possible as well).</p>
7.	
Assessment methods:	<ul style="list-style-type: none">• evaluation of practical work/exercises: 5 * 13% = 65% and evaluation of the final project: 35%• no further subdivision of credits is envisaged• grading scale: pos. (6-10), neg. (1-5)
8.	
References (3-5):	<ul style="list-style-type: none">• WANG, Yufei and DUARTE, José Pinto (2002) Automatic generation and fabrication of designs, Automation in Construction 11 (3) (2002) pp. 291-302• HEITOR, Teresa V.; DUARTE, José P.; PINTO, Rafaela M. (2004) Combing Grammars and Space Syntax: Formulating, Generating and Evaluating Designs, International Journal of Architectural Computing vol. 2 - no. 4, 492-515• SOUSA, José Pedro and DUARTE, José Pinto (2005) Digital Desires, Material Realities, Digital Design: The Quest for New Paradigms [23nd eCAADe Conference Proceedings / ISBN 0-9541183-2-4] Lisbon (Portugal) 21-24 September 2005, pp. 221-228• DUARTE, José Pinto, DUCLA-SOARES, Gonçalo and SAMPAIO, A. Zita (Eds.) (2005) Digital Design: The Quest for New Paradigms, 23nd eCAADe Conference Proceedings [ISBN 0-9541183-2-4], Lisbon (Portugal) 21-24 September 2005, 880 p.• DUARTE, José (2007) Inserting New Technologies in Undergraduate Architectural Curricula, Predicting the Future [25th eCAADe Conference Proceedings / ISBN 978-0-9541183-6-5] Frankfurt am Main (Germany) 26-29 September 2007, pp. 423-430

1.				
Course title:	Interfaces for Architectural Learning and Collaboration			
Course coordinator:	doc. dr. Tadeja Zupančič			
Lecturers:	doc. dr. Tadeja Zupančič			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2.	
Prerequisites:	<ul style="list-style-type: none"> for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3.	
Objectives of the course and intended learning outcomes (competences):	<ul style="list-style-type: none"> to gain knowledge and understanding of the architectural profession (in the case of candidates from other professions) to understand the reasons for life-long architectural learning to understand the differences between visual abilities of professional and general public to gain knowledge of research results dealing with the development of graphic user interfaces (so-called 'GUI'-s) to understand the limitations concerning distant communication of spatial identity to develop methods and techniques of user-interface conceptualization and design: for professional and life-long architectural learning, architectural design collaboration and/or public participation
4.	
Contents (Syllabus outline):	<ul style="list-style-type: none"> levels of visual communicability of different publics problems of visual communication between professional and general public blended professional and life-long architectural learning, tools of general and professional architectural learning, for interdisciplinary architectural and urban design collaboration and public participation

●● interdisciplinary module

5. Literature:	<ul style="list-style-type: none">• Eysenck, M.W., Keane, M.T., 2000. <i>Cognitive Psychology, A Student's Handbook</i>. Psychology Press, Hove.• Boesselman, P., 1998. <i>Representation of Places</i>. Berkeley, Los Angeles, London: University of California Press.• Jordan, P., Mehnert, B., Harfmann, A. (ur.), 1997. <i>Design and Representation</i>. ACADIA, Ohio, USA.• Lootsma, B., Rujken, Dick: <i>Media and Architecture</i> (Amsterdam: Berlage Institute Amsterdam, Postgraduate Laboratory of Architecture, 1999).• IAPS (International Association for people-Environment Studies): http://www.bwk.tue.nl/iaps/• CumInCAD (Cumulative Index of Computer Aided Architectural Design): http://itc.fgg.uni-lj.si/cumincad/.
6. Teaching methods:	Combination of contemporary didactic methods, from lectures to individual study-presentations and e-learning options; round tables with invited guests; workshops with case studies; organized together with other elective courses, or individual consultancy upon the candidate's agreement.
7. Assessment methods:	<ul style="list-style-type: none">• evaluation of individual seminar work, its presentation and group discussion,• no further subdivision of credits is envisaged,• grading scale: pos. (6–10), neg. (1–5).
8. References (3-5):	<ul style="list-style-type: none">• ZUPANČIČ STROJAN, Tadeja, MULLINS, Michael. The Identity of Place in Virtual Design Studios. <i>J. archit. educ.</i> (1984), 2002, [No.] 561, str. 15-21, ilustr.• MULLINS, Michael, ZUPANČIČ-STROJAN, Tadeja. Representational Thickness: a quantitative comparison between physical, CAVE and Panorama environments. <i>IJAC; International Journal of Architectural Computing</i>. March 2005, 1, 3, str. 128-144, ilustr.• MULLINS, Michael, ZUPANČIČ STROJAN, Tadeja. Towards Engaged Learning in Virtual Design Studios. V: BEHESHTI, Reza. <i>Advances in Building Informatics</i>. Paris: Europa, 2001, str. 171-180. ISBN 2-909285-20-0.• ZUPANČIČ STROJAN, Tadeja. The future of digital developments in architecture. V: LIU, Yu-Tung (ur.). <i>Defining digital architecture : 2001 Far East international digital architectural design award</i>. Basel; Boston; Berlin: Birkhäuser, 2002, str. 34. ISBN 3-7643-6891-8.• ZUPANČIČ-STROJAN, Tadeja. Developing digital architecture : characteristics of successful projects. V: YU-TUNG, Liu (ur.). <i>Developing digital architecture : 2002 FEIDAD Award</i>. Basel: Birkhäuser-Publishers for architecture, 2003, str. 42-43. ISBN3-7643-2165-2.

1.				
Course title:	Architectural Publishing			
Course coordinator:	Ao.Univ.Prof. Arch. Dipl.-Ing. Dr.techn. Bob Martens			
Lecturers:	Ao.Univ.Prof. Arch. Dipl.-Ing. Dr.techn. Bob Martens			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2.	
Prerequisites:	<ul style="list-style-type: none"> for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3.	
Objectives of the course and intended learning outcomes (competences):	<ul style="list-style-type: none"> students acquire knowledge on principles and instances of scientific inquiry in the domain of architecture mastering of means for scientific exchange in architecture ability to handle sources of information in architecture knowledge and understanding of established publication methods and means ability to develop innovative methods of architectural publishing
4.	
Contents (Syllabus outline):	<ul style="list-style-type: none"> introduction to (digital) library resources types of scientific publications submission, review and dissemination detailed review of scientific book publications detailed review of relevant references (includes articles in magazines, listed in databases such as ISI citation databases and other professional ones like ICONDA, Index to Architectural Periodicals etc.), book chapters impact analysis; Extended Use of Citations; Citation Indexing machine learning – ontology

●● interdisciplinary module

5. Literature:	<ul style="list-style-type: none">• Avery Index to Architectural Periodicals http://www.csa.com/factsheets/avery-set-c.php• CTK – podatkovne zbirke Periodicals• http://www.ckk.uni-lj.si/zbirke/• CumInCAD (Cumulative Index of Computer Aided Architectural Design): http://cumincad.scix.net/• ICONDA http://www.irbdirekt.de/iconda/• IAPS (International Association for people-Environment Studies): http://iaps.scix.net/• Tuje baze podatkov in servisi http://home.izum.si/izum/ft_baze/• Where Innovation Finds Inspiration http://scientific.thomsonreuters.com/isi/
6. Teaching methods:	Combination of contemporary didactic methods, from lectures to individual study-presentations and e-learning options; round tables with invited guests; workshops with case studies; organized together with other elective courses, or, upon the candidate's agreement; individual consultancy (distant learning possible as well).
7. Assessment methods:	<ul style="list-style-type: none">• personal reflections concerning architectural publishing (written report); evaluation of individual seminar paper, its presentation and discussion,• no further subdivision of credits is envisaged,• grading scale: pos. (6–10), neg. (1–5).
8. References (3-5):	<ul style="list-style-type: none">• CEROVŠEK, Tomo, MARTENS, Bob (2004) On the Extended Use of Citations in CAAD, Van Leeuwen, J.P. and H.J.P. Timmermans (eds.) Developments in Design & Decision Support Systems in Architecture and Urban Planning, Eindhoven: Eindhoven University of Technology, ISBN 90-6814-155-4, p. 1-17.• BHATT, A.; MARTENS, B. 'ON-TO-CAAD Investigating the Knowledge Contained within the Corpus of CAAD Research', in: CAADRIA 2006 - Proceedings of the 11th International Conference on Computer Aided Architectural Design Research in Asia, pp. 413-423.• CHAN, L.; MARTENS, B. (Ed.). Openness in Digital Publishing: Awareness, Discovery and Access, Elpub 2007 Conference Proceedings, Vienna (Austria).• MARTENS, B.; DOBREVA, M. (Ed.). Digital Spectrum: Integrating Technology and Culture - Elpub 2006 Conference Proceedings, Bansko (Bulgaria).• MARTENS, B.; CEROVSEK, P. 'Experiences with Web-based Scientific Collaboration: Managing the Submission and Review Process of Scientific Conferences', in: Elpub 2004 Conference Proceedings, Brasilia (Brasil), pp. 204-217.

1.				
Course title:	History of Urbanism			
Course coordinator:	prof. dr. Fedja Košir			
Lecturers:	prof. dr. Fedja Košir			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2.	
Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3.	
Objectives of the course and intended learning outcomes (competences):	The student learns that architecture is part of the cultural space which has formed throughout centuries or even millennia of cultural development; this is even more so when it comes to buildings that are part of city structures. The course explains basic concepts of compositional development that in time formed succession of socially and culturally different structures of which scale transcends individual buildings: the scale of the city.
4.	
Contents (Syllabus outline):	<ul style="list-style-type: none"> • basic notions: genesis of (spatial) elements • consistent city: Orient and America • consistent city: classical antiquity • post-antiquity (feudal): return of organic structures • renaissance: ideal city • the rational 'Georgette' city • the modern 'tartan city', 19th and 20th century • feudal cities in Slovenia • from feudal to the functionalistic city • contemporary Slovene urban structures

●●● interdisciplinary module

5. Literature:	<ul style="list-style-type: none">• Košir, F.: Zamisel mesta, SM 1993 (with the reference to 195 titles of accessible international literature)
6. Teaching methods:	Combination of contemporary didactic methods, from lectures to individual study-presentations; round tables; case studies; guest lecturers, in combination with other electives (upon previous agreement with candidates) or individual consultations.
7. Assessment methods:	<ul style="list-style-type: none">• evaluation of short discussion contributions,• no further subdivision of credits is envisaged,• grading scale: pos. (6–10), neg. (1–5).
8. References (3-5):	<ul style="list-style-type: none">• KOŠIR, Fedja. Slovenska šola za arhitekturo v mednarodnih teoretskih tokovih. Piranesi, Autumn 1998, let. 5, št. 7/8, str. 78-85, ilustr.• KOŠIR, Fedja. Vrednote : metode in merila. Urbani izziv, december 1991, št. 18, str. 29-32.• KOŠIR, Fedja: Zamisel mesta, SM 1993.• KOŠIR, Fedja. K arhitekturi. Ljubljana: Fakulteta za arhitekturo, 2006-2007. Zv. <1-3>, ilustr. ISBN 961-6160-64-8. ISBN 978-961-6160-64-3.• KOŠIR, Fedja, KREČIČ, Peter, ZUPANČIČ, Bogo. Le Corbusier, 1887-1965 : ob stodvajsetletnici arhitektovega rojstva. V Ljubljani: Fakulteta za arhitekturo: Arhitekturni muzej, 2007. 121 str., ilustr. ISBN 978-961-6160-77-3.

1. Course title:	History of Urbanism in Slovenia			
Course coordinator:	prof. dr. Fedja Košir			
Lecturers:	prof. dr. Fedja Košir			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<p>The student learns that the urbanism cannot be treated only as some kind of appendage, as it is too often treated in debates related to the development of architecture. The architecture and urbanism are indeed the part of fine art, which are firmly connected, yet they might be also relatively autonomous. Like a man, also a profession has difficulties to claim its legitimacy, if it does not know anything about of its roots. From the beginnings the studying and teaching of this topic is divided into two parts: "historical retrospective" and design methodology". The course interprets the urbanism as a part of general cultural context and not as a sort of self-sufficient engineering. The interventions in space cannot be performed with adequate responsibility if you not well acquainted with all specific processes which formed its physiognomy. It is too often thought that the only completely competent disciplines are landscaping and protection of architectural heritage – the statement that cannot stand a more detail analyses, especially if we try to understand the complete previous development process. Also the traditional methods of art history seem to be unusable in this case. For this reason the presented subject tries to fill up the methodological gap which had been left gaping for inexcusable far too long.</p>

●●● interdisciplinary module

<p>4. Contents (Syllabus outline):</p>	<ul style="list-style-type: none"> • introduction (characteristics of the space of Slovenian settlement) • archaeological heritage from the Neolithic till the demise of Classical Antiquity • regionalization issues (and standard national fetishes) • feudal cities and markets in Slovenia • from the feudal to the modern tissue • Maks Fabiani as the first modern urbanist, architect and theoretician ('in the field') • the thirties and the influx of functionalistic attitudes (1930-1940) • Traditionalism strikes back: Architecturea Perennis (1941) • the meager and short phase of Socrealism (1945-1950) • return to CIAM Modernism (1950-1965) • structuralistic phase of Functionalism (1965-1980) • alternative bureaucratic quasi-planning and Ecosocialism ('urbanism = mathematics + marxism') • post-modern critique of functionalistic dogmas (1980-2000) • digitalia 'pro futuro' • reserve topic (summary): urban concepts of the 20th century
<p>5. Literature:</p>	<ul style="list-style-type: none"> • Košir, F.: Zamisel mesta, SM 1993 (with 195 references to available literature in foreign languages) • Košir, Fedja. K arhitekturi. Ljubljana: Fakulteta za arhitekturo, 2006-2007. Zv. <1-3>, ilustr. ISBN 961-6160-64-8. ISBN 978-961-6160-64-3. • Kostof, S.: The City Shaped (1991). • Kostof, S.: The City Assembled (1992).
<p>6. Teaching methods:</p>	<p>Combination of contemporary didactic methods, from lectures to individual study-presentations; round tables.</p>
<p>7. Assessment methods:</p>	<ul style="list-style-type: none"> • evaluation of short discussion contributions, • no further subdivision of credits is envisaged, • grading scale: pos. (6–10), neg. (1–5).
<p>8. References (3-5):</p>	<ul style="list-style-type: none"> • KOŠIR, Fedja. Slovenska šola za arhitekturo v mednarodnih teoretskih tokovih. Piranesi, Autumn 1998, let. 5, št. 7/8, str. 78-85, ilustr. • KOŠIR, Fedja. Vrednote : metode in merila. Urbani izziv, december 1991, št. 18, str. 29-32. • Košir, Fedja: Zamisel mesta, SM 1993. • KOŠIR, Fedja. K arhitekturi. Ljubljana: Fakulteta za arhitekturo, 2006-2007. Zv. <1-3>, ilustr. ISBN 961-6160-64-8. ISBN 978-961-6160-64-3. • KOŠIR, Fedja, KREČIČ, Peter, ZUPANČIČ, Bogo. Le Corbusier, 1887-1965 : ob stodvajsetletnici arhitektovega rojstva. V Ljubljani: Fakulteta za arhitekturo: Arhitekturni muzej, 2007. 121 str., ilustr. ISBN 978-961-6160-77-3.

1.				
Course title:	Urban Planning			
Course coordinator:	doc. dr. Ilka Čerpes			
Lecturers:	doc. dr. Ilka Čerpes			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2.	
Prerequisites:	<ul style="list-style-type: none"> for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3.	
Objectives of the course and intended learning outcomes (competences):	<p>Students learn:</p> <ul style="list-style-type: none"> basic theoretical (starting) points of the urban planning and different methods and techniques of urban planning acquire the knowledge and skills for independent research and professional work in the field urbanism and planning
4.	
Contents (Syllabus outline):	<ul style="list-style-type: none"> overview of contemporary urban planning theories sustainable development of the cities detection and evaluation of the urban development problems balancing of different development interests processing of information for the purpose of planning land use setting and organization infrastructural network, network of built and unbuilt space patterns strategies for generation of built forms

●●● interdisciplinary module

5. Literature:	<ul style="list-style-type: none">• Alexander, Ch., 1977, <i>A Pattern Language</i>, Oxford University Press, New York.• Koolhaas, R., Mau, B., O.M.A., 1998, <i>S,M,L,X,L</i>, Penguin.• Lynch, K., 1984, <i>Site planning</i>, MIT Press, 3. izdaja, Cambridge.• Vodilna načela za trajnostni prostorski razvoj evropske celine, (<i>Guiding Principles for Sustainable Spatial Development of the European Continent</i>), CEMAT, Svet Evrope (Committee of Ministers of the Council of Europe), 2000, Strasbourg.• Čerpes, I., Dešman, M., 2007, <i>O urbanizmu, Kaj se dogaja s sodobnim mestom</i>, Ljubljana, Krtina.
6. Teaching methods:	Lectures and seminar work.
7. Assessment methods:	<ul style="list-style-type: none">• evaluation of seminar work report,• no further subdivision of credits is envisaged,• grading scale: pos. (6–10), neg. (1–5).
8. References (3-5):	<ul style="list-style-type: none">• POGAČNIK, Andrej, ČERPES, Ilka. 1994, <i>Varstvo in usmerjanje oblikovne podobe slovenskih mest</i>, 1994, Ljubljana: 134 – 148, ilustr.• ČERPES, Ilka. 1998, <i>Strukturni pristop k urbanističnemu načrtovanju</i>. AB, Arhit. bilt., november 1998, let. 28, št. 141-142, str. 58-65, ilustr.• PLANIŠČEK, Anja (ur.), VODOPIVEC, Aleš (ur.). ČERPES, Ilka. 2004, <i>Stanovanje za naše razmere, Urbanistični kriteriji za vrednotenje kakovosti stanovanjske gradnje</i>, Stanovanjski sklad Republike Slovenije, javni sklad, str. 122-127.• KOŽELJ, Janez, ČERPES, Ilka, 2006. <i>Hypereurope, Slovenian Coastal Region</i>, Univerza v Ljubljani, Fakulteta za arhitekturo, IAACS, Barcelona, Ljubljana.• ČERPES, I., DEŠMAN, M., 2007, <i>O urbanizmu, Kaj se dogaja s sodobnim mestom</i>, Krtina, Ljubljana.

1.				
Course title:	Architecture and Sustainable Spatial Development			
Course coordinator:	prof. dr. Andrej Pogačnik			
Lecturers:	prof. dr. Andrej Pogačnik			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2.	
Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement • or alternatively previously passed 2nd cycle exams in the field of urbanism, regional planning and environment preservation
3.	
Objectives of the course and intended learning outcomes (competences):	<p>The aim of the subject is to research architecture – individual buildings or bigger compositions – as a constituent of spatial sustainable development on community, municipality, regional and state level. In the process of acquiring knowledge the understanding of the complexity of spatial and environmental factors will be examined as well as other factors such as economic, social and cultural. The subject broadens architectural research with other interdisciplinary fields, modified by- and overlapping with- sectorial development and preservational interests in space, such as agricultural, transportational, energetic, turistical, management of water resources... Land use for settlement, production, green surfaces, centres etc will be also examined from the architectural view point. Special emphasis will be put on the reseach of locations examined for safety against natural and other disaster.</p>

●●● interdisciplinary module

<p>4. Contents (Syllabus outline):</p>	<ul style="list-style-type: none"> • Architecture as a component of sustainable development of cities, rural areas and landscapes. • Research of attractions, environmental carrying capacity and vulnerability of space. Theories of local accessibility analysis, economic justification and social acceptability. • Models of plot development, urban and regional scenarios, simulations and games; behavioural, public-opinion, situational and other research. • Visual – morphological research of building placement. • Architecture and transport systems. • Architecture and energy-communal systems. • Architecture and agricultural/forest systems. • Architecture and protected 'green belt' systems • Architecture as a component of land use on municipality, regional and state level. • Regionally and state wide important buildings (DLN). • Architecture and aspects of sustainable development (ESDP, CEMAT, HABITAT etc). • Discussion.
<p>5. Literature:</p>	<ul style="list-style-type: none"> • ESDP, Potsdam 1999, Ministrstvo za okolje in prostor, 2000. • Hall, P. (2002), Cities of Tomorrow, Oxford, Blackwell Publishers, UK. • Marković-Uzelac, A. (2001), Prostorno planiranje, Dom i svijet, Zagreb. • Pogačnik, A. (2006), Kako izdelamo prostorske načrte, Založba Obzorja, Maribor. • Priemus, H, Button, K., Nijkamp, P. (2007), Land Use Planning, Urban and Regional Planning, Series No. 6, Edgar Elgar Pub. • Rogers, R. (1997), Cities for a small planet, Faber and Faber, London. • Ruth, M. (2006), Smart Growth and Climate Change, New Horizons and Regional Science Series, Edward Elgar Publ.
<p>6. Teaching methods:</p>	<p>Lectures (including discussion); excursion – field work; individual work with students on specific cases or research topics.</p>
<p>7. Assessment methods:</p>	<ul style="list-style-type: none"> • written examination (with the help of literature), active participation in discussion, field work, research, • no further subdivision of credits is envisaged, • grading scale: pos. (6–10), neg. (1–5).
<p>8. References (3-5):</p>	<ul style="list-style-type: none"> • POGAČNIK, Andrej (2003). The Future of Slovenian Regions in a Globalised Europe. IB revija 37/2-3, Ljubljana. • POGAČNIK, Andrej (2007). Urejanje slovenskega prostora po novem. Urbani izziv 18/1-2, Ljubljana. • POGAČNIK, Andrej (2004) Metode sinteze občinskega in regionalnega prostorskega plana danes. V: Prosen, A.:Prostorske znanosti za 21.stoletje, FGG IPŠPUP, Ljubljana. • POGAČNIK, Andrej (2006). Fabianijeva nagrada za prostorsko načrtovanje. Ministrstvo za okolje in prostor, Ministrstvo za kulturo, DUPPS, Občina Komen, Ustanova Maks Fabiani. • POGAČNIK, Andrej (2003). Instruments of Regional Planning for Mountain and Coastal Zones. European Regional Planning No 68, Strassbourg, publikacija Sveta Evrope.

1. Course title:	Sustainable City Development			
Course coordinator:	doc. dr. Mojca Šašek Divjak			
Lecturers:	doc. dr. Mojca Šašek Divjak			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<ul style="list-style-type: none"> understanding topics of the sustainable city ability for evaluation of alternative city development models and urban patterns based on sustainability characteristics autonomous preparation of development proposal (plan) with such characteristics
4. Contents (Syllabus outline):	<p>Sustainable city development:</p> <ul style="list-style-type: none"> the definition of sustainable city development (by different authors) parameters and indicators of sustainable city development comparison of different city models and urban patterns the decentralized concentration model of settlement in different levels (region, city, quarter, community) good practices of sustainable cities, quarters, communities
5. Literature:	<ul style="list-style-type: none"> Calthorpe, P. and Fulton, W. (2002) <i>The Regional City: Planning for the End of Sprawl</i> (Washington-Covelo-London, Island Press). Frey, H. (1999) <i>Designing the city, Towards a more sustainable form</i> (London, E & FN SPON). Naess, P. (2006) <i>Urban Structure Matters: Residential Location, Car Dependence and Travel Behaviour</i> (Routledge, London and New York). Walton D. et al. (2000) <i>Urban Design Compendium</i>, Llewelyn-Davies, English Partnership. Wheeler, M. (2004) <i>Planning for Sustainability: Creating Livable, equitable and Ecological Communities</i>, Routledge, London and New York.

●●● interdisciplinary module

6.	Teaching methods:	Lectures supported by presentation materials, problem oriented discussions.
7.	Assessment methods:	<ul style="list-style-type: none">• presentation of assigned task/project,• no further subdivision of credits is envisaged,• grading scale: pos. (6–10), neg. (1–5).
8.	References (3-5):	<ul style="list-style-type: none">• ŠAŠEK-DIVJAK, Mojca. Planning for sustainability in Slovenian towns. <i>International Journal for Housing science appl.</i>, 2007, vol. 31, no. 3, str. 205-214.• ŠAŠEK-DIVJAK, Mojca. The settlements development in Ljubljana region in the corridors of the railway transportation. <i>Planum</i>, 2003, str. 1-14, ilustr.• ŠAŠEK-DIVJAK, Mojca. Širjenje mesta s poudarkom na urbani mobilnosti : primeri iz ZDA = Building the city with emphasis on urban mobility : examples from USA. <i>Urbani izziv</i>, 2002, let. 13, št. 2, str. 34-44, 126-130, ilustr.• ŠAŠEK-DIVJAK, Mojca. Nove oblike bivanja - trajnostno usmerjene "avtonomne" skupnosti. V: <i>K razvoju telecentrov v Sloveniji</i>. Ljubljana: [D. Jeraj]: Bons, 2004, str. 93-105.• ŠAŠEK-DIVJAK, Mojca. Razvoj regionalnega mesta = Developing the regional city. V: <i>PROSEN, Anton (ur.). Prostorske znanosti za 21. stoletje</i>. Ljubljana: Fakulteta za gradbeništvo in geodezijo, Interdisciplinarni podiplomski študij prostorskega in urbanističnega planiranja, 2004, str. 101-113.

1. Course title:	Tools for Control of Urban Forms			
Course coordinator:	prof.dr. Kaliopa Dimitrovska Andrews			
Lecturers:	prof.dr. Kaliopa Dimitrovska Andrews			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<ul style="list-style-type: none"> • understanding of design component stand point in the systems of town planning • presentation of modern methods and techniques for research of physical structures • abilities for independent usage of these tools in practical design and planning projects (prestructuration and development) of town an of urban structures
4. Contents (Syllabus outline):	<p>Tools for control of urban forms:</p> <ul style="list-style-type: none"> • town planning in modern planning systems, • aesthetic issues in town development • methods for evaluation and stimulation of quality of urban design and economical sustainability of projects relkated to town development, • design measures for planning of town and other settlements: classification and their influence on the development of physical structures

<p>5.</p> <p>Literature:</p> <ul style="list-style-type: none"> • Dimitrovska Andrews, K. (predvidoma 2008), Orodja za nadzor urbanih oblik (monografija v pripravi). • Hamilton, F.E.I., Dimitrovska Andrews, K. & Pichler-Milanović, Nataša (2005) (eds.), Transformation of Cities in Central and Eastern Europe towards, Globalization. Tokyo: United Nations University Press. • Carmona, M. in Tiesdel, S. (2007) (eds.), Urban Design Reader. London: Architectural Press. • Carmona, M. et al. (2003), Public Places - Urban Spaces: the Dimensions of Urban Design. Oxford: Architectural Press. • Thwaites, K., Porta, S., Romice, O. in Greaves, M. (2007) (eds.), Urban Sustainability through Environmental Design: Approaches to time-people-place responsive urban spaces. London: Routledge Taylor & Francis Group. • Trancik, R. (1986) Finding Lost Space, Theories of Urban Design. New York: Van Nostrand Reinhold. • Walton, D. et al. (2000) Urban Design Compendium, Llewelyn-Davies, English Partnership.
<p>6.</p> <p>Teaching methods: Usage of modern didactic methods.</p>
<p>7.</p> <p>Assessment methods:</p> <ul style="list-style-type: none"> • exam with the presentation of seminar work, • no further subdivision of credits is envisaged, • grading scale: pos. (6–10), neg. (1–5).
<p>8.</p> <p>References (3-5):</p> <ul style="list-style-type: none"> • DIMITROVSKA ANDREWS, Kaliopa. Obvladovanje mesta : formalni in neformalni vzvodi (re)urbanizacije = Mastering the city : formal and informal planning tools. Urbani izziv, 1998, let. 9, št. 2, str. 3-15, 111-116. • DIMITROVSKA ANDREWS, Kaliopa, BUTINA-WATSON, Georgia. City urban design in a free market economy - the case of Ljubljana, Slovenia. Urban des. int. (Lond.), 2001, no. 6, str. 143-155. • DIMITROVSKA ANDREWS, Kaliopa, NIKŠIČ, Matej. Vloga urbanističnega oblikovanja pri notranjem razvoju naselij = The role of urban design in internalised settlement development. Urbani izziv, 2005, let. 16, št. 1, str. 21-28, 145-147, ilustr. • DIMITROVSKA ANDREWS, Kaliopa. Mastering the post-socialist city: impacts on planning and the built environment. V: HAMILTON, F. E. Ian (ur.), DIMITROVSKA ANDREWS, Kaliopa (ur.), PICHLER-MILANOVIĆ, Nataša (ur.). Transformation of cities in Central and Eastern Europe : towards globalization. Tokyo: United Nations University Press, cop. 2005, str. 153-186. • DIMITROVSKA ANDREWS, Kaliopa, MIHELIČ, Breda, STANIČ, Ivan. The post-socialist urban restructuring of Ljubljana : strengthening identity. V: STANILOV, Kiril (ur.). The post-socialist city : urban form and space transformations in Central and Eastern Europe after socialism, (The GeoJournal library, Vol. 29). Dordrecht: Springer, 2007, str. 427-445.

1. Course title:	Regional Planning			
Course coordinator:	prof. dr. Andrej Černe			
Lecturers:	prof. dr. Andrej Černe			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<ul style="list-style-type: none"> recognition and understanding of regional aspects and dimensions of development and their effects application of regionalization in regional planning and regional policy recognition and determination of regional development problems and their possible solutions application of regional indicators and criteria for evidence-based governance
4. Contents (Syllabus outline):	<p>Regional development, regionalization and regional analysis:</p> <ul style="list-style-type: none"> regional aspects of development; regional problems; development trends and development opportunities; determination of regional development potentials regional science; regional concept; structure, functions and development of regions; inter- and intra-regional disparities; development areas institutional aspects; indicators and criteria as an instrument in regional planning and development; the system of indicators; methodological sheets concept of region; spatial division of areas; regionalization; regions as an instrument of regional policy; types of regions; functions of regional centres

●●● interdisciplinary module

5.	
Literature:	<ul style="list-style-type: none">• Campbell, S., Fainstein, S.S. (1996) Readings in Planning Theory. Blackwell, Oxford.• Černe, A. 2005, Strokovne analize v prostorskem planiranju. Geografski pogledi na regionalni razvoj. Dela 23, Oddelek za geografijo, Filozofska fakulteta, Ljubljana, str. 115 – 161.• Dickinson, R. E. 1976, Regional Concept: The Anglo-American Leaders. Routledge and Kegan Paul, London.• Friedmann, J. (1987) Planning in the Public Domain: From Knowledge to Action. Princeton University Press, Princeton, New Jersey.• Harvey, D. (1996) Justice, Nature and the Geography of Difference. Blackwell, Oxford.• Key Thinkers on Space and Place. 2005, Ed. P. Hubbard, R. Kitchin, G. Valentine, SAGE Publication, London.• Higgins, B., Savoie, D.J. (1995) Regional Development Theories and Their Application. Transaction Publishers, New Brunswick, New Jersey.• Regional Planning. Classics in Planning 4. 2007, D.A. Plane, L.D. Man, K. Button, P. Nijkamp, Edward Elgar Publishing Limited, Glos, Chetlham.• Wong, C. 2006, Indicators for Urban and Regional Planning. The interplay of policy and methods. Routledge, London.
6.	
Teaching methods:	Lectures, seminar, workshops.
7.	
Assessment methods:	<ul style="list-style-type: none">• evaluation of individual seminar work,• no further subdivision of credits is envisaged,• grading scale: pos. (6–10), neg. (1–5).
8.	
References (3-5):	<ul style="list-style-type: none">• ČERNE, Andrej. Strokovne analize v prostorskem planiranju. Geografski pogledi na regionalni razvoj. 2005, Dela 23, Oddelek za geografijo, Filozofska fakulteta, Ljubljana, str. 115 – 161.• ČERNE, Andrej. Regionalne razlike in regionalno planiranje. Regionalni razvoj in regionalno planiranje v teoriji in praksi. 2005, Dela 24, Oddelek za geografijo, Filozofska fakulteta, Ljubljana, str. 125 – 136.• ČERNE, Andrej, GULIČ, Peter, KUŠAR, Simon. Harmonisation of Tools, Data and Procedures and Monitoring of Spatial Development. 2006, Final report. CONSPACE – PP5 – WP2, (Gulič, P., Kušar, S. et al.), University of Ljubljana, Faculty of Arts, Department of Geography, Ljubljana.• KUŠAR, Simon, ČERNE, Andrej. Regional, spatial and environmental indicators for assessment of regional development, structure and potentials. 2006, (S. Kušar) Dela 26, Geografija in sodobni izzivi, Oddelek za geografijo, Filozofska fakulteta v Ljubljani, str. 27-41.

1. Course title:	Environmental Management for Rural Tourism and Recreation			
Course coordinator:	prof. mag. Peter Gabrijelčič			
Lecturers:	prof. mag. Peter Gabrijelčič			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<p>The students learn the basic principles of environmental protection as a science and familiarize themselves with its meaning for solving problems in the narrower or in the wider environment. They are introduced with the challenges of environmental protection in the modern society, different approaches to environmental management, planning and management of rural tourism and recreation with the intention to identify the capacities of naturally sensitive areas and level of tourist visits that are still acceptable in the environment, thereby assuring quality tourist services and quality of the living environment. The course will give the starting and the methodological bases for the understanding of the relationship: environment - person - society.</p>
4. Contents (Syllabus outline):	<ul style="list-style-type: none"> • introduction and definition of course (content and organization) • environmental ethics • psychological and sociological aspects of the environment • environmental economics: considering the supply and demand (spare time activities in the physical environment), considering the costs and benefits (of interventions into space, capacities of an area, WPEG) • psychological and sociological aspects of interventions into space (the reflection and criticism of scientific and technological development) • added value and improvement of quality of life for all users of space - the role of contractors and management of supporting civil/infrastructure services on the user's quality of life (civil engineering works, surveying activities, water and public utility, interventions) • quality of ambience related to physical, mental and social health • quality of the living environment in its protective and promotional function for preservation of health; knowledge of theory of active rest • way of life as the guiding principle of a healthy way of life

<p>5. Literature:</p>	<ul style="list-style-type: none"> • Budowski, G. (1976) Tourism and environmental conservation: conflict, coexistence, or symbiosis. <i>Environmental Conservation</i> 3, 27-31. • Kirn, A., (1992). <i>Ekološa (okoljska) etika</i>. Maribor: Aram. • Kovač, B. (2000). <i>Razvojne usmeritve Evropske Unije v turizmu in slovenski turizmu. Slovenski turizem in naše vključevanje v Evropske integracije</i>. Posvet. Portorož: Turistica, Visoka šola za turizem. • Lah, A. (1998). <i>Narava in okolje. Varstvo in razvoj v Republiki Sloveniji</i>. Ljubljana: Svet za varstvo okolja Republike Slovenije. • Mlekuž, Ž., A., (1999) <i>Podjetništvo v naravnih parkih: primer doline Koritnice v TNP.</i>:UL Ekonomska fakulteta, mag. naloga. • Pogačnik, A. (1992). <i>Urejanje prostora in varstvo okolja</i>. Univerzitetni učbenik. Ljubljana: Mladinska knjiga. • Prosen, A. (1993). <i>Sonaravno urejanje podeželskega prostora</i>. Ljubljana: FAGG, Katedra za prostorsko planiranje. • Tribe, J., Font, X., Griffiths, N., Vickery, R., Yale, K. (2000). <i>Environmental management for rural tourism and recreation</i>. London and New York: Cassell. • Turner, R., K., Pearce, D., Bateman, I. (1994). <i>Environmental economics</i>. University of East Anglia and University College London. • Yu, D.W., Hendrickson, T. and Castillo, A. (1997) <i>Ecotourism and conservation in Amazonian Peru: short-term and long-term challenges</i>. <i>Environmental Conservation</i> 24, 130-8.
<p>6. Teaching methods:</p>	<p>Lectures combined with the exercises, group and individual consultations.</p>
<p>7. Assessment methods:</p>	<ul style="list-style-type: none"> • evaluation of seminar work and its presentation, • no further subdivision of credits is envisaged, • grading scale: pos. (6–10), neg. (1–5).
<p>8. References (3-5):</p>	<ul style="list-style-type: none"> • GABRIJELČIČ, Peter. <i>Urejanje zunajmestnega prostora in naselij : raziskava</i>. AB, Arhit. bilt., maj 1986, št. 81/82, str. [5-17], ilustr. • GABRIJELČIČ, Peter. <i>Urejanje manjših naselij glede na stopnjo urbanosti = Management of small settlements in view of their level of urbanity</i>. AR, Arhit. razisk. (Tisk. izd.). [Tiskana izd.], 2005, [Št.] 1, str. 8-13, ilustr. • GABRIJELČIČ, Peter, GRUEV, Marta. <i>Oblikovanje avtocestnega in cestnega prostora</i>. Ljubljana: Ministrstvo za promet in zveze, Direkcija RS za ceste, 2001. 130 str., ilustr. ISBN 961-6403-59-1.

1. Course title:	Local Planning and Public Participation			
Course coordinator:	Ao.Univ.Prof. Dipl.-Ing. Dr. Andreas Voigt			
Lecturers:	Ao.Univ.Prof. Dipl.-Ing. Dr. Andreas Voigt Vertr. Ass. Dipl.-Ing. Dr. techn. Helena Linzer Ass. Prof. Dipl.-Ing. Dr. techn Wolfgang Dokonal			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<ul style="list-style-type: none"> • understanding of planning procedures and the contribution of architecture to spatial planning • competences concerning various planning approaches and to planning related methods
4. Contents (Syllabus outline):	<ul style="list-style-type: none"> • 'local planning' and 'public participation': definitions and basic assumptions concerning spatial planning and development, urban and regional planning, village and urban renewal • fundamentals of system theory, simulation theory and communication theory related to planning theory • planning processes – dealing with public issues various public and private actors (incl. groups and teams of actors); dealing with problems, complexity and various levels of detail • taking advantage of various planning approaches • bottom-up procedures in planning: methods of public participation, 'best practice'
5. Literature:	<ul style="list-style-type: none"> • Amdam, Joergen (1995): Mobilization, Participation and Partnership Building in Local Development Planning. European Planning Studies, Vol. 3, No. 3, pp.305-332 • Schönwandt, Walter (1999): Grundriß einer Planungstheorie der „dritten Generation“. – In: DISP 136/137, ETH Zürich, p.25-35 • Stein, J. M. (Hrsg., 1995): Classic Readings in Urban Planning. New York

<p>6. Teaching methods:</p>	<p>combination of contemporary didactic methods, from lectures to individual study-presentations and e-learning options: discussions; roundtables with invited guests; workshops with case studies, organized together with other elective courses, or, upon the candidate's agreement, individual consultancy</p>
<p>7. Assessment methods:</p>	<ul style="list-style-type: none"> • evaluation of individual seminar work, its presentation and discussion • no further subdivision of credits is envisaged • compliance with the university/faculty scale of grades (1-10)
<p>8. References (3-5):</p>	<ul style="list-style-type: none"> • VOIGT, A.: "Planung in Kulturstädten zwischen Kontinuität und Wandel"; in: "KulturStädteTourismus (= Tourismuswissenschaftliche Manuskripte; Bd. 11)", R. Bachleitner, H.J. Kagelmann (ur.); Profil Verlag, München Wien, 2003, ISBN: 3-89019-543-1, s. 47 - 60. • SCHÖNWANDT, W., VOIGT, A.: "Planungsansätze"; v: "Handwörterbuch der Raumordnung", Akademie für Raumforschung und Landesplanung (ARL), Hannover, 2005, ISBN: 3-88838-555-5, S. 769 - 776. • VOIGT, A.: "Raumbezogene Simulation und Örtliche Raumplanung. Wege zu einem (stadt-) raumbezogenen Qualitätsmanagement. (= Projektieren, Konzipieren, Konstruieren, Bauen, Sanieren, Demolieren. Architektonische (Un-)Kultur in Österreich; Bd. 11)"; Österreichischer Kunst- und Kulturverlag, Wien, 2005, ISBN: 3-85437-272-8; 228 str. • VOIGT, A.: WALCHHOFER, H.P.: "Editorial"; v: "Cooperative Planning in the New Europe. Kooperativ Planen im neuen Europa. [= IRIS-ISIS-Schriftenreihe Nr. 10 bzw. IFOER-Schriftenreihe Nr. 5]"; A. Voigt, H.P. Walchhofer (ur.); Institut für Räumliche Interaktion und Simulation bzw. Fachbereich Örtliche Raumplanung; Österreichischer Kunst- und Kulturverlag, Wien, 2006, ISBN 978-3-85437-253-1, s. 1 - 5. • VOIGT, A., WALCHHOFER, H.P.: "Cooperative Planning in the New Europe. Kooperativ Planen im neuen Europa"; v: Buchreihe "IRIS-ISIS-Schriftenreihe Nr. 10 [= IFOER-Schriftenreihe Nr. 5]", Buchreihen-Herausgeber: A. Voigt, H.P. Walchhofer; herausgegeben von: Institut für Räumliche Interaktion und Simulation [bzw. Fachbereich Örtliche Raumplanung]; Österreichischer Kunst- und Kulturverlag, Wien, 2006, ISBN 978-3-85437-253-1, 64 S. • LINZER, H. : "Die Notwendigkeit interkommunaler Zusammenarbeit in Österreich"; v: "Interkommunale Planung. Schriftenreihe des Institutes für Örtliche Raumplanung, TU Wien. IFOER E268-4 ", A. Voigt, H.P. Walchhofer (Hrg.); Österreichischer Kunst- und Kulturverlag, Wien, 2001, ISBN: 3-85437-222-1, S. 23 - 25. • LINZER, H.: "Dreizehn Thesen zur Entwicklung und Erneuerung ländlicher Räume"; v: "Raum@. Positionen der Forschung zum Lebensraum (= IRIS-ISIS Publications at ÖKK-Editions; Bd. 7)", A. Voigt, B. Martens, H. Linzer (Hrg.); Österreichischer Kunst- und Kulturverlag, Wien, 2003, ISBN: 3-85437-241-8, S. 65 - 76. • VOIGT, A., MARTENS, B., LINZER, H. (ur.): "Raum@. Positionen der Forschung zum Lebensraum (= IRIS-ISIS Publications at ÖKK-Editions; Bd. 7)"; Österreichischer Kunst- und Kulturverlag, Wien, 2003, ISBN: 3-85437-241-8; 146 str. • VOIGT, A., LINZER, H., SCHMIDINGER, E.: "What People Really Want" - User Validation of "Digital City" Concepts"; v: "O sentido e o Universo Digital = Meaning and the Digital Universe. Anais do VIII congresso da sociedade ibero-americana de gráfica digital. SIGraDi 2004 - Unisinos - Sao Leopoldo - Brasil. 10, 11 e 12 de Novembro de 2004", C.C. Scaletsky, I.M. Rocha (Hrg.); SIGraDi, Sao Leopoldo, Brasilien, 2004, ISBN: 85-7431-224-x, S. 30 - 32. • DOKONAL, W., MARTENS, B. and PLÖSCH, R. (2002) New Expectations: City Modeling in the Internet Age, SIGraDi 2002 - [Proceedings of the 6th Iberoamerican Congress of Digital Graphics] Caracas (Venezuela) 27-29 november 2002, pp. 97-100 • DOKONAL, Wolfgang and HIRSCHBERG, Urs (ur.) (2003) Digital Design, 21th eCAADe Conference Proceedings [ISBN 0-9541183-1-6], Graz (Austria) 17-20 September 2003, 677 p. • DOKONAL, W., MARTENS, B. and Plösch, R. (2004) Creating and Using Virtual Cities, Architecture in the Network Society [22nd eCAADe Conference Proceedings / ISBN 0-9541183-2-4] Copenhagen (Denmark) 15-18 September 2004, pp. 580-585 • KNIGHT Michael, DOKONAL, Wolfgang, BROWN Andre and HANNIBAL Claire (2005) Contemporary Digital Techniques in the Early Stages of Design, Computer Aided Architectural Design Futures 2005 [Proceedings of the 11th International Conference on Computer Aided Architectural Design Futures / ISBN 1-4020-3460-1] Vienna (Austria) 20-22 June 2005, pp. 165-174 • DOKONAL, Wolfgang; KNIGHT, Michael (2007) Digital Design Tools vs. Sketching in Design, Predicting the Future [25th eCAADe Conference Proceedings / ISBN 978-0-9541183-6-5] Frankfurt am Main (Germany) 26-29 September 2007, pp. 843-848

1. Course title:	Urban Economics			
Course coordinator:	doc. dr. Andreja Cirman			
Lecturers:	doc. dr. Andreja Cirman			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	The course teaches the students the broader understanding of economic forces which effect town and urban development. The objective of the course is to introduce the tools and perspectives needed for effective town planning while working in public or private sector. The course gives the theoretical background as well as it explains the usage of tools and experiences needed for the analysis of urban markets.
4. Contents (Syllabus outline):	<ul style="list-style-type: none"> introduction to real estate markets: the property and capital markets; the operation of property markets: a micro and macro approach; microeconomic analysis of property markets: residential real estate: the urban land market – rents and prices; residential real estate: the urban housing market – structural attributes and density; non-residential real estate: firm site selection, employment; decentralization, and multicentered cities; non-residential real estate: retail location and market competition; macroeconomic analysis of property markets: economic growth and metropolitan real estate markets; residential real estate: the market for housing units – households, prices and financing; residential real estate: the market for housing services – moving, sales, and vacancy; residential real estate: the cyclical behaviour of metropolitan housing markets; non-residential real estate: the operation of non-residential property markets; the impact of local governments on real estate markets: local government, property taxes, and real estate markets; public goods, externalities, and development regulation;

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5. Literature:	<ul style="list-style-type: none">• DiPasquale, D. & Wheaton, W. (1996) Urban Economics and Real Estate Markets. Upper Saddle River: Prentice-Hall. (selected chapters).• McDonald, J. & McMillan, D. (2006) Urban Economics and Real Estate: Theory and Policy. Wiley-Blackwell (selected chapters).• Selected papers from relevant scientific magazines.• recommended literature will be simultaneously updated with the field progression and recent research achievements
6. Teaching methods:	Lectures and seminars, group seminar project exercises.
7. Assessment methods:	<ul style="list-style-type: none">• evaluation of seminar work and written exam,• no further subdivision of credits is envisaged,• grading scale: pos. (6–10), neg. (1–5).
8. References (3-5):	<ul style="list-style-type: none">• CIRMAN, Andreja. Housing tenure preferences in the post-privatisation period : the case of Slovenia. Hous. stud., Jan. 2006, vol. 21, no. 1, str. 113-134.• CIRMAN, Andreja. Housing finance in Slovenia : the key role of the National Housing Fund. Housing finance international, Dec. 2004, vol. 19, no. 2, str. 11-16.• SENDI, Richard, CIRMAN, Andreja. Analiza trga stanovanj v Sloveniji. IB rev. (Ljubl.), 2004, letn. 38, št. 3, str. 18-36, tabele ; graf. prikazi.

1. Course title:	Real Estate Valuation and Urban Economics			
Course coordinator:	doc. dr. Damjan Marušić			
Lecturers:	doc. dr. Damjan Marušić			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<p>The course is primarily intended for the students with the interest in influences of market economy on architectural design and urban development. It broadens the students' knowledge in fields of the real property valuation (with emphasis on market value) and urban economics. The main objectives of the course is to teach:</p> <ul style="list-style-type: none"> market analysis of the real estate to use the results of analyses (of the real estate value and behaviour of the real estate market) in conceptions of spatial development and (architectural/urban) planning <p>The term 'space' is used to express variety of scales: from architectural space to urban, regional, etc.</p>
4. Contents (Syllabus outline):	<ul style="list-style-type: none"> the basic conceptions and methods of real property valuation identification of the subject of valuation, defining the value, distinguishing between the price and the value and distinguishing between different kinds of values the behaviour of the real estate market, modelling and simulation techniques and methods for evaluation: the possibilities of mathematical simulations and computer tools enabling analyses of different complexity (e.g. space analysis) the real estate market as dynamic multi-dimensional problem, i.e. multi-dimensional space where time is an important component: the influence of space development on real estate value in certain environment and the influence of real estate value and behaviour on space development and sustainability of architectural/urban solution; (economic) parameters which influence the development of space in time how to ensure the planned and sustainable development of architectural/urban space? (from the point of view of the real estate market and urban economics)

<p>5. Literature:</p>	<ul style="list-style-type: none"> • PŠUNDER, Igor, TORKAR, Milan. Ocenjevanje vrednosti nepremičnin, (Strokovna zbirka Slovenskega inštituta za revizijo, zv. 1). 1. izd. Ljubljana: Slovenski inštitut za revizijo, 2003. • PŠUNDER, Igor, TORKAR, Milan. Vrednost nepremičninskih pravic, (Strokovna zbirka Slovenskega inštituta za revizijo, zv. 5). 1. izd. Ljubljana: Slovenski inštitut za revizijo, 2007. • Mednarodni standardi ocenjevanja vrednosti. Osma izdaja. International Valuation Standards Committee. 2007. • DIPASQUALE, Denise, WHEATON, William C.. Urban Economics and Real Estate Markets. Engelwood Cliffs (N.J.) [etc.] : Prentice Hall, cop. 1996. • HARVEY, Jack. Urban Land Economics , 4th edition. Macmillan Press LTD, London, 1996. • Property Appraisal and Assessment Administration. ECKERT Joseph K. [ur.]. International Association of Assessing Officer, 1990. • copies of articles and chapters from recent professional and scientific publications
<p>6. Teaching methods:</p>	<p>combination of lectures, seminar work and individual project oriented work (the exercises include practical use of valuation and simulation techniques); the course consists of several components of lectures and making of theoretical or practical individual paper/project</p>
<p>7. Assessment methods:</p>	<ul style="list-style-type: none"> • each student with a cooperation of the professor selects his individual problem based task, which may be related to doctoral thesis; the student presents and defends its individual elaborate at the end of the semester, • no further subdivision of credits is envisaged, • grading scale: pos. (6–10), neg. (1–5).
<p>8. References (3-5):</p>	<ul style="list-style-type: none"> • MARUŠIĆ, Damjan, FAJFAR, Peter. On the inelastic seismic response of asymmetric buildings under bi-axial excitation. <i>Earthquake eng. struct. dyn.</i>, 2005, letn. 34, str. [943]-963, graf. prikazi. • FAJFAR, Peter, MARUŠIĆ, Damjan, PERUŠ, Iztok. Torsional effects in the pushover-based seismic analysis of buildings. <i>Journal of earthquake engineering - JEE</i>, 2005, letn. 9, št. 6, str. 831-854, graf. prikazi. • FAJFAR, Peter, DOLŠEK, Matjaž, MARUŠIĆ, Damjan, STRATAN, Aurel. Pre-and post-test mathematical modelling of a plan-asymmetric reinforced concrete frame building. <i>Earthquake eng. struct. dyn.</i>, 2006, letn. 35, št. 11, str. 1359-1379, graf. prikazi. • FLOGIE DOLINAR Erna, MARUŠIĆ Damjan, SMODIŠ Martin. Primer množičnega vrednotenja eno - in dvostanovanjskih hiš. 18. posvet: Poslovanje z nepremičninami – država, državljani stanovanja, Portorož, 15. in 16. 11. 2007. • MARUŠIĆ Damjan. Possible Applications of Mass Valuation System in Slovenia, Case: Mortgage Portfolio Monitoring. International Conference "Real estate valuation and taxation: international experience and Russian choice"; 12-13 December 2007, Moscow, Russia.

1. Course title:	Sociological Concepts of Modern Urbanism			
Course coordinator:	prof. dr. Marjan Hočevar			
Lecturers:	prof. dr. Marjan Hočevar			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<ul style="list-style-type: none"> a comprehensive overview and examination of spatial sociological dimensions of contemporary cities students acquire fundamental information and expertise, needed for an understanding of a transformed role of urbanity and, consequently, urbanism in the postmodern era by getting acquainted with social mechanisms of spatial transformation students gain capacity to understand relations between the phenomena of 'new urbanism' and 'new localism' in the processes of globalization
4. Contents (Syllabus outline):	<p>The course focuses on the questions of transformation of cities at intertwining processes of globalization and localization ('glocalization'). The cities, hitherto the most characteristic social-spatial aggregates of heterogeneity are no longer a necessary or rational need but a reflective choice for an increasing number of actors. This does not imply a linear decrease of a role of a city and spatial practices. The instrumental significance of spatial practices is decreasing. The reflective practices linked to lifestyles, are however increasing. Intertwining of non-residential spatial practices and spectacle functions are essential. They are redefining postulates of classical urbanism.</p>

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5. Literature:	<ul style="list-style-type: none">• Urry, J. (1995): Consuming places. London, Routledge• Soja, E. W. (2000): Postmetropolis. Oxford, Blackwell (pogl. 1,14).• Hočevar, M. (2000): Novi urbani trendi: prizorišča v mestih, omrežja med mesti. Ljubljana. Znanstvena knjižnica FDV (3, 4. pogl.).• Uršič, Hočevar (2007) Protiurbanost kot način življenja, OST, FDV
6. Teaching methods:	lectures and seminar discussions
7. Assessment methods:	<ul style="list-style-type: none">• drawing up of final (seminar) paper; small group project based work is also allowed,• no further subdivision of credits is envisaged,• grading scale: pos. (6–10), neg. (1–5).
8. References (3-5):	<ul style="list-style-type: none">• HOČEVAR, Marjan, BARTOL, Tomaž (2005). The capital cities in the ten new European Union countries in selected bibliographic databases. Scientometrics.• HOČEVAR, Marjan (2000). Novi urbani trendi : prizorišča v mestih - omrežja med mesti, (Zbirka Znanstvena knjižnica, 43). Ljubljana: Fakulteta za družbene vede.• HOČEVAR, Marjan (et.al) (2005). Changing of the Slovene urban system: specific socio-spatial trends and antiurban public values / attitudes. V: ECKARDT, Frank (ur.). Paths of urban transformation, (The European city in transition, Vol. 5). Frankfurt am Main.• HOČEVAR, Marjan, URŠIČ Matjaž (2007). Protiurbanost kot način življenja, Ost, FDV, Ljubljana.

1. Course title:	Landscape Settlements of Cultural Diversity			
Course coordinator:	doc. dr. Alenka Fikfak			
Lecturers:	doc. dr. Alenka Fikfak			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<p>The course covers the basic methodology needed to understand the changes of landscape settlements in context of cultural diversity. This is a long-term relation between space, man and society. As it is viewed today, a housing development area represents a bundle of activities deriving from previous periods. Changes have appeared in the process of evolution relating to the historical circumstances, economy, and socio-political framework as well as the living culture. They have influenced the concept of space and regulated its stability or instability. Some of course specifics: complex and systemic view and work, understanding and use of critical analysis and its use in concrete problem solutions, communications with experts from different objects and different interests, etc.</p>
4. Contents (Syllabus outline):	<p>Theoretical and historical basis for understanding forms and spaces in relation to living culture; methodological way of living units formation, countryside examples of settlements – dwelling culture in space and time ; application/understanding of theoretical basis in landscape/space. The principal objects (perceptual, experimental and living space); living culture, knowing people needs, free time and quality of life; contemporary global social and economic changes. Designing units for living, countryside way of urban building, building structure in time and space; language of different settlements, nucleation and dispersion; meaning of individual space as a basis of living units forming (intimae zone, individual, social and public zone); the elementary principles of space forming – light, communication and function. Architectural space, the shape/layout of the house and culture of living; elements of buildings in the meaning of sensing/experiencing , imagination of space; examples of contemporary organized building in countryside ; new look living, new forms, experimental models, etc.</p>

<p>5.</p> <p>Literature:</p> <ul style="list-style-type: none"> • Fikfak, A., 2004. Evolucijske konstante naselbinske kulture v prenovi - z aplikacijo na Slovenskem primorju – Goriška brda. Univerza v Ljubljani, Fakulteta za arhitekturo, Ljubljana, 263 str. • Gabrijelčič, P., Fikfak, A., 2002. Rurizem in ruralna arhitektura. Univerza v Ljubljani, Fakulteta za arhitekturo- univerzitetni učbenik, Ljubljana, 163 str. • Gabrijelčič, P., 1985. Varstvo in urejanje kulturne krajine, Univerza v Ljubljani, Fakulteta za arhitekturo, gradbeništvo in geodezijo, Ljubljana, 458 str. • Barbič, A., 2005. Izzivi in priložnosti podeželja. Univerza v Ljubljani, Fakulteta za družbene vede, Ljubljana, 343 str. • Rubenstein, J. M., 1999. The cultural landscape: an introduction to human geography. Prentice Hall, Upper Saddle River, 227 str. • Castells, M., 2000. End of Millennium. The Information Age: Economy, society and Culture. Volume III. Oxford, Malden, MA: Blackwell. Second Edition, 440 str. • Hofman, B.T. (ed.), 2006. Art and cultural heritage: law, policy, and practice. Cambridge University Press, Cambridge, New York, 562 str. • Atkinson, P., Simmons, I., Roberts, B., Brian 070, 1998. People, land and time: an historical introduction to the relations between landscape, culture and environment. Arnold, London, 286 str.
<p>6.</p> <p>Teaching methods:</p> <p>Lectures with students taking active part in discussion, practical workshops.</p>
<p>7.</p> <p>Assessment methods:</p> <ul style="list-style-type: none"> • evaluation of seminar work, • no further subdivision of credits is envisaged, • grading scale: pos. (6–10), neg. (1–5).
<p>8.</p> <p>References (3-5):</p> <ul style="list-style-type: none"> • FIKFAK, Alenka. Spreminjanje vloge mestnega načrta : urbanistična teorija, arhitekturno projektiranje ali kaj več? = The changing role of the master plan : planning theory, architectural design or more?. Urbani izziv, 1999, let. 10, št. 2, str. 3-16, 157-163. • FIKFAK, Alenka. Spreminjanje naselbinskih vzorcev: definiranje nukleacije - disperzije = Changing settlement patterns: defining nucleation - dispersal. AR, Arhit. razisk. (Tisk. izd.). [Tiskana izd.], 2004, [Št.] 1, str. 30-35, ilustr. • FIKFAK, Alenka. Stabilnost naselbinskega prostora = Stability of settlement space. AR, Arhit. razisk. (Tisk. izd.). [Tiskana izd.], 2005, [Št.] 2, str. 14-19, ilustr. • ZBAŠNIK-SENEGACNIK, Martina, FIKFAK, Alenka. Urban, architectural, technological and economic turning points in the construction of apartment buildings in Slovenia = urbanističke, arhitektonske, tehnološke i ekonomske prekretnice u izgradnji višestambenih zgrada u Sloveniji. Prostor (Zagreb), 2006, god. 14, br. 1, str. 77-86, ilustr. • FIKFAK, Alenka. Reurbanizacija večstanovanjskih objektov v okviru spreminjanja bivalne kulture = Re-urbanisation of the apartment building from the view of changes in the living culture. Geod. vestn., jun. 2007, letn. 51, št. 2, str. 341-352, ilustr.

1. Course title:	Protection of Architectural Landscapes			
Course coordinator:	prof. dr. Živa Deu			
Lecturers:	prof. dr. Živa Deu			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<p>The objective of the course is to present fundamental knowledge and methods of development planning of built structures in established cultural landscapes by emphasizing the protection of recognized urban and architectural identity measures and values, particularly those influencing the specific structure which makes the landscapes recognizable. Development protection of built structures which co-shape cultural landscapes has become one of the key tasks in development planning in Europe, also expressed in the latest international agreements (with regard to the protection of European regional diversity).</p> <p>Competences essential to the course include: research and critical application of relevant international theory and know-how (including legislation), comprehension and use of basic and specialized relevant research methods in solving concrete tasks (development renovation of existing built environment), cross-disciplinary approach (history of art, ethnology, sociology).</p>
4. Contents (Syllabus outline):	<p>Presenting relevant international documents about the protection of built environment aiming to strengthen existing regional diversity (architectural policy for sustainable Europe of diverse regions); presenting the role of significance of the built environment, as an element which contributes to regional diversity (in Slovenia and in Europe); presenting architectural landscapes and regions of Slovenia with a view to highlighting the reasons for their diversity; presenting the methods which help to identify quality values and measures of the built environment in an architectural landscape as the prerequisite for quality refurbishment and new designs; presenting examples of good practice in renovation of built structures and environment in an architectural (cultural) landscape with the emphasis on the discussion on the methods used (from various disciplines: architecture, history of art, ethnology, sociology), advantages and disadvantages.</p>

<p>5. Literature:</p>	<ul style="list-style-type: none"> • DEU, Živa. Stavbarstvo slovenskega podeželja: značilno oblikovanje stanovanjskih hiš. Ljubljana: Kmečki glas, 2001. 157 str., ilustr. • DEU, Živa. Obnova stanovanjskih stavb na slovenskem podeželju. Ljubljana: Kmečki glas, 2004. 277 str., ilustr. • DEU, Živa. (ur.). Revitalizacija Štanjelskega gradu : izdelava izvedbene dokumentacije za obnovo Gradu Štanjel in hiše ob Stolpu na vratih (Ferrarijev vrt) : elaboration of execution documentation for Štanjel Castle and the house by the Tower with gateway (Ferrari's garden). Komen: Občina: = Municipality, 2002, str. 60, ilustr. • Fister, Peter, Boh-Pečnik, Nuša, Debevec, Leon, deu, Živa, Kavčič, Mateja, Lah, Ljubo. Arhitekturne krajine in regije Slovenije. Ljubljana: Ministrstvo za okolje in prostor RS, Zavod republike Slovenije za prostorsko planiranje, 1993. • Fister, Peter, Boh-Pečnik, Nuša, Debevec, Leon, deu, Živa, Kavčič, Mateja, Lah, Ljubo. Glosar arhitekturne tipologije. Ljubljana: Ministrstvo za okolje in prostor RS, Zavod republike Slovenije za prostorsko planiranje, 1993. • Biran K. Roberts. Landscape of Settlement. London. 1996. 181 str., ilustr. • Riita Nikula. Architecture and landscape. Otavia publishing company LTD, Helsinki. 1993. 158 str., ilustr.
<p>6. Teaching methods:</p>	<p>Lectures with students participating in the discussion, practical workshops.</p>
<p>7. Assessment methods:</p>	<ul style="list-style-type: none"> • evaluation of seminar work / paper, • no further subdivision of credits is envisaged, • grading scale: pos. (6-10), neg. (1-5).
<p>8. References (3-5):</p>	<ul style="list-style-type: none"> • DEU, Živa. Celovito varstvo grajenih struktur v načrtovanju razvoja slovenskih kulturnih krajin = Integral protection of built environment in planning the development of Slovenian cultural landscape. V: PROSEN, Anton (ur.). Prostorske znanosti za 21. stoletje: jubilejni zbornik ob 30-letnici Interdisciplinarnega podiplomskega študija urbanističnega in prostorskega planiranja in 60-letnici prof. dr. Andreja Pogačnika, predstojnika tega študija. Ljubljana: Fakulteta za gradbeništvo in geodezijo, Interdisciplinarni podiplomski študij prostorskega in urbanističnega planiranja, 2004, str. 147-156, ilustr. • DEU, Živa. Celovita prenova naselja Štanjel: Mednarodna načela celovitega varstva stavbne dediščine v izdelani dokumentaciji za prostorsko, urbano in arhitekturno prenavo naselja Štanjel. Urbani izziv, jun. 2005, letn. 16, št. 1, str. 108-116, ilustr. • DEU, Živa. Celovito varstvo stavbne dediščine v urejanju prostora (kulturnih krajin). V: HUDALES, Jože (ur.), VISOČNIK, Nataša (ur.). Dediščina v rokah stroke, (Zbirka Županičeva knjižnica, št. 14). Ljubljana: Filozofska fakulteta, Oddelek za etnologijo in kulturno antropologijo, 2005, str. 29-40. • DEU, Živa. Kako misliti stavbno dediščino v prostoru med laguno in morjem? Naselje Lio Piccolo in utrdbe v občinah Cavallino - Treporti. V: GRANDINETTI, Pierluigi (ur.), DEU, Živa (ur.). Cavallino - Treporti: progetti per un'idea di parco: progetti di architettura e conservazione delle Facoltà di Architettura di Venezia e di Lubiana per il parco turistico di Cavallino - Treporti. Padova: Il Poligrafo, cop. 2006, 2006, str. 196-201, ilustr. • DEU, Živa. Ozemeljska raznovrstnost - cilj sodobnega urejanja prostora = Territorial diversification - the objective of modern spatial planning and management. Geod. vestn., jun. 2007, letn. 51, št. 2, str. 321-340, ilustr.

1. Course title:	Methods of Ambient Design			
Course coordinator:	prof. mag. Peter Gabrijelčič			
Lecturers:	prof. mag. Peter Gabrijelčič			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<ul style="list-style-type: none"> understanding of the mechanisms of spatial perception and sensual formation of human living environment capabilities of methodological approach to form urban ambients complex methodological approach to ambient design
4. Contents (Syllabus outline):	<p>The course is oriented to the research of mechanisms of spatial perception and sensual formation of human living environment thru several perception levels and different perception media. The concept of ambient is complex and difficult to define and should be understand in the concept of this course as:</p> <ul style="list-style-type: none"> material and physical reality of seen and real which can be experienced as really present and physical, emotional and intellectual response of a person to environment as mind presentation of reality which generated it, as symbol, as idea holder and as cultural message. <p>The quality assessment of urban ambient is related to systems of values generated in different historical periods and profession doctrines. The system of values, which originates from the concept of traditional town, differs from the system of values, which is related to new forms of generic city. Apparent completely diametric systems of values are nevertheless connected with common universal elements of urban planning. On the micro-ambiental level these are expressed as elements of vision, fragrance, sound, warmness and similar, on the macro-ambiental level as regularly or coincidentally formed structures. The multi-level experience of traditional town is illustrated in several basic works of Sitte (ambient as realistic geometry), Cullen (ambient as psychological challenge), Lynch (ambient as recognizable form) and Alexander (ambient as cultural phenomena). The explanation of generic city can be found in the works of Koolhaas and other modern theoretics. They announce the new aesthetics of space which will base on individuality and diversity as common ethics principles. The conditions for successful creation of urban environments, which are important catalyst of public life in open space, is therefore the understanding the particular social context and its system of values.</p>

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5. Literature:	<ul style="list-style-type: none">• Lynch, Kevin, <i>The Image of the City</i>, MIT Press, Cambridge MA 1960.• Cullen, Gordon, <i>Townscape</i>, Architectural Press, London 1961• Alexander, Christopher, <i>A Pattern of Language</i>, Oxford University Press, New York 1982.• Gosling, David, Norman Foster, Gordon Cullen: <i>Visions of Urban Design</i>, Academy Editions, London 1996.• Koolhaas, Rem, <i>Generično mesto, Metamorfoze</i>, Sorosov center za sodobne umetnosti, Ljubljana 1999.• Carmona, Matthew et al, <i>Public Places, Urban Spaces, The Dimension of Urban Design</i>, Architectural Press, Amsterdam 2003.• Prakash, Gyan, Kruse, M. Kevin, <i>The Spaces of the Modern City</i>, Princeton University Press, New Jersey, 2008.
6. Teaching methods:	Lectures, study of literature, seminar work, discussion.
7. Assessment methods:	<ul style="list-style-type: none">• evaluation of seminar work and its public presentation,• no further subdivision of credits is envisaged,• grading scale: pos. (6–10), neg. (1–5).
8. References (3-5):	<ul style="list-style-type: none">• GABRIJELČIČ, Peter. <i>Urejanje in varstvo kulturne krajine</i>, univerzitetni učbenik, Ljubljana 1985.• GABRIJELČIČ, Peter. <i>Oblikovalski principi pri urejanju cestnega prostora</i>. V: AŠANIN-GOLE, Pedja (ur.). <i>2. slovenski kongres o cestah in prometu</i>, [Portorož, 1994].• GABRIJELČIČ, Peter. <i>Urejanje manjših naselij glede na stopnjo urbanosti = Management of small settlements in view of their level of urbanity</i>. AR, 2005.• GABRIJELČIČ, Peter, FIKFAK, Alenka, ČOK, Gregor. <i>Urejanje podeželskih naselij - naselja brez središčnega pomena = Management of settlements in the countryside - settlements without central significance : raziskava, research</i>. AR, 2005.• GABRIJELČIČ, Peter. <i>Podrobnejša zasnova prostorskih ureditev slovenskega obalnega pasu = Detailed concept of spatial development in the Slovene coastal belt</i>. AR, 2006.

1.				
Course title:	Sensitive Urban Places			
Course coordinator:	doc. dr. Tadeja Zupančič			
Lecturers:	doc. dr. Tadeja Zupančič			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2.	
Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3.	
Objectives of the course and intended learning outcomes (competences):	<ul style="list-style-type: none"> • a knowledge and understanding of established architectural and urban research/design methods • an ability of cross-scale phenomenological thinking • an ability of parallel spatial investigation from conceptual and experiential point of view • an ability of experiential methodological developments for micro-urban redesign and redevelopments
4.	
Contents (Syllabus outline):	<ul style="list-style-type: none"> • detailed review of architectural and urban research/design methods • architecture as a reflection of other professions from the perspective of the methods dealt with • professional profile as a starting point of possible methodological contributions • proposal of methodological developments

<p>5. Literature:</p>	<ul style="list-style-type: none"> • Bosselmann, Peter: Representation of Places. Reality and Realism in City Design. Berkeley etc.: University of California Press, 1997. • Casey, Edward S.: The Fate of Place, A Philosophical History. Berkeley / Los Angeles / London: University of California Press, 1997. • Cormona, Mattew; Hearth, Tim; Oc, Taner; Tiesdell, Steve: Public Places, Urban spaces. Amsterdam etc.: Architectural Press 2003. • Curdes, Gerhard. Stadtstruktur und Standgestaltung. Stuttgart/Berlin/Koeln: Kohlhammer, 1993. • Madanipour, Ali: Design of Urban Space. An Inquiry into a Socio-spatial Process. Chichester etc.: Wiley, 1996. • Prinz, Dieter: Staedtebah: Band 2: Staedtebaulisches Gestalten. Stuttgart/Berlin/Koeln: Kohlhammer, 1988. • Rihtar, France, Rihtar, Katja. Koherence v prostoru na primeru vasi Volčji grad pri Komnu. Ljubljana: Fakulteta za arhitekturo, 1996. • Rihtar, F., Zupančič Strojan, T. Prostor mesta. Ljubljana: Univerza v Ljubljani, Fakulteta za arhitekturo, 1996.
<p>6. Teaching methods:</p>	<p>Combination of contemporary didactic methods, from lectures to individual study-presentations and e-learning options; round tables with invited guests; workshops with case studies; organized together with other elective courses, or individual consultancy upon the candidate's agreement.</p>
<p>7. Assessment methods:</p>	<ul style="list-style-type: none"> • evaluation of individual seminar work, its presentation and discussion, • no further subdivision of credits is envisaged, • grading scale: pos. (6–10), neg. (1–5).
<p>8. References (3-5):</p>	<ul style="list-style-type: none"> • ZUPANČIČ STROJAN, Tadeja. <i>Univerza in mesto: ubikacijski razvoj Univerze v Ljubljani</i>. Ljubljana: Fakulteta za arhitekturo, 1997. 183 str. • KOS, Drago, MARUŠIČ, Janez, POLIČ, Marko, ZUPANČIČ-STROJAN, Tadeja. People-environments studies in Slovenia. <i>Medio ambiente comport. hum.</i>, 2003, 4, 2, str. 179-192. • MULLINS, Michael, ZUPANČIČ-STROJAN, Tadeja, JUVANČIČ, Matevž. Communicating professional design intentions to the lay public in the internet. V: TUNÇER, Bige (ur.). <i>E-activities in design and design education</i>. Paris: Europa, 2003, str. 93-102, ilustr. • ZUPANČIČ-STROJAN, Tadeja, HOČEVAR, Marjan. Prenova slovenskega stanovanjskega sklada v luči evropskih prostorskih omrežij. <i>Urbani izziv</i>, 2004, letn. 15, [Št.] 1, str. 41-49, ilustr. • MULLINS, Michael, ZUPANČIČ-STROJAN, Tadeja. Representational Thickness: a quantitative comparison between physical, CAVE and Panorama environments. <i>International journal of architectural computing</i>, March 2005, 1, 3, str. 128-144, ilustr.

1.				
Course title:	Design of Open Space			
Course coordinator:	prof. dr. Davorin Gazvoda			
Lecturers:	prof. dr. Davorin Gazvoda			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2.	
Prerequisites:	<ul style="list-style-type: none"> for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3.	
Objectives of the course and intended learning outcomes (competences):	<p>The students:</p> <ul style="list-style-type: none"> acquire a deeper understanding of landscape planning familiarize themselves with the theory (critics), especially in relation between architecture and design of open space gain the knowledge on complex design of space which respects and uses the specifics of architectural design on one side and the landscape planning on the other side
4.	
Contents (Syllabus outline):	<p>Reasons for existence and typology of the objects of garden art. Transition of garden art in more complex design of open space. The basic concept of open space. City open space. Built and green open space. City plaza – built opened space in the city with landscape structure.</p> <p>Modern landscape design. Generation of landscape forms. Interdependence of architectural and landscape design. Effect of architecture to design of open space and different understanding of landscape in different professions that work in the field of open space design. Inclusion of sociological, psychological and landscape-ecological issues in design of city open space.</p> <p>New paradigms in design of open space. Critical overview of recent design achievements in the field of open space design.</p>

<p>5.</p> <p>Literature:</p> <ul style="list-style-type: none"> • Ogrin, D., 1989. Structural theory of urban landscape. Between the mimetic naturalism and cultural concepts. Conference Proceedings The Theory and Practice of Urban Landscape. Biotechnical Faculty, Ljubljana • Ogrin, D., 2000. Landscape architecture : identity, relationships, autonomy. V: ANICIC, Branka (ur.).ECLAS, Haifa, 1997. <i>Landscape of the future: the future of landscape architecture education</i>. Zagreb: Faculty of Agriculture, Department of Landscape Architecture, s. 107-119 • Kucan, A., 1999. Cultural landscapes as symbols of national identity-protection or change? : The shifting aspects of landscape identity = Kulturni krajobrazi kao simboli nacionalnog identiteta- ocuvati ili mijenjati? : promjenljivi aspekti identiteta krajobraza. <i>Poljopr. znan. smotra</i>, vol. 64, no. 4, str. 259-268. • Gazvoda, D. Characteristics of modern landscape architecture and its education. <i>Landsc. urban plan.</i>. [Print ed.], 2002, vol. 60, no. 2, str. 117-133. • Gazvoda, D. Ljubljana's persistent urban landscapes. V: GÖKYER, Ercan (ur.). The 17th annual meeting of ECLAS, Ankara, Turkey, September 14-18 2005. <i>Landscape change : conference proceedings</i>. [Ankara: Department of Landscape Architecture, Faculty of Agriculture, Ankara University, 2005], str. 117-128, ilustr. • Magazines: <ul style="list-style-type: none"> • Topos. Calwey, München. • Landscape Research. Carfax, Abingdon. • Landscape Architecture. ASLA, Boston • Anthos, BSLA-FSAP, Zuerich
<p>6.</p> <p>Teaching methods:</p> <p>Lectures, essay, individual work (with discussions about written contributions).</p>
<p>7.</p> <p>Assessment methods:</p> <ul style="list-style-type: none"> • evaluated written essay, • no further subdivision of credits is envisaged, • grading scale: pos. (6–10), neg. (1–5).
<p>8.</p> <p>References (3-5):</p> <ul style="list-style-type: none"> • GAZVODA, Davorin. Characteristics of modern landscape architecture and its education. <i>Landsc. urban plan.</i> [Print ed.], 2002, vol. 60, no. 2, str. 117-133. • LI, Dihua, GAZVODA, Davorin, XIAOYE, Han. Lotus of Olympic green: a landscape design of integrating city, ecology and people's activities together. <i>Zhongguo yuanlin</i>, 2002, 5, str. 22-26. • GAZVODA, Davorin. [Characteristics of modern landscape architecture and its education]. V: KONGJING, Yu (ur.), DIHUA, Li (ur.). <i>Landscape architecture: the profession and education</i>. [Beijing: China Architecture & Building Press], 2003, str. 152-161, ilustr. • KONGJING, Yu, GAZVODA, Davorin, DIHUA, Li, QIMING, Tian (ur.). <i>Alternatives of the future: great circle case, Beijing</i>. China Architecture and Building Press: Beijing, 2003. 135 str., ilustr. ISBN 7-112-05740-X. • GAZVODA, Davorin, MLAKAR, Aleš, MARUŠIČ, Janez. Landscape planning and design of the countryside: approach and teaching practise. <i>Landscape 21 (Ljubl.)</i>, 2004, vol. 1, no. 1, str. 44-51, ilustr.

1. Course title:	Housing Environment Humanization			
Course coordinator:	prof.dr. Janez Kresal			
Lecturers:	prof.dr. Janez Kresal			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<ul style="list-style-type: none"> The course teaches students a method of critical evaluation of the 'elements of humanization' and introduces it into house planning. These humanization elements gathered in special catalogue are the basis for the evaluation and implementation of improvements to a project itself and for a detail analysis of achieved humanization level. Student understands the phenomenology of the 'elements of humanization' as represented by the system of goods which reveals constituent example characteristics within biophysical and psychosocial field. The goods are distributed among physical sphere (usefulness, functionality, economy, beauty), biological sphere (satisfying of human needs, safety, procreation, comfort) and social sphere (equality, individuality, sociability, freedom).
4. Contents (Syllabus outline):	<ul style="list-style-type: none"> elements of humanization phenomenology of the elements of humanization applying method on certain project method reflections and looking for a new models

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5. Literature:	<ul style="list-style-type: none">• Kresal, J., (1987), Arhitekturni elementi humaniziranega stanovanjskega okolja (izbor iz raziskovalne naloge), Fakulteta za arhitekturo, Ljubljana.• Kresal, J., (1985), Humanizacija stanovanjskega okolja – elementi humanizacije (raziskovalna naloga), Fakulteta za arhitekturo, Ljubljana.• Alexander, C., (1977), A Pattern Language, Oxford University Press, New York.• Alexander, C., (1975), The Timeless Way of Building. Oxford University Press, New York.
6. Teaching methods:	Lectures, intensive and active work on project and/or theme.
7. Assessment methods:	<ul style="list-style-type: none">• oral examination, evaluation of the seminar/project work,• no further subdivision of credits is envisaged,• grading scale: pos. (6–10), neg. (1–5).
8. References (3-5):	<ul style="list-style-type: none">• KRESAL, Janez. Humanizacija stanovanjskega okolja - Elementi humanizacije, (Arhitektura), (Gradbeništvo). Ljubljana: RSS, 1985. 243 str., ilustr.• KRESAL, Janez. Arhitekturni elementi humaniziranega stanovanjskega okolja : izbor iz raziskovalne naloge, (Publikacije podiplomskega študija FAGG - VTOZD Arhitektura, št. 3). Ljubljana: Univerza, Fakulteta za arhitekturo, gradbeništvo in geodezijo, 1987. 243 str., ilustr.• ZBAŠNIK-SENEGAČNIK, Martina, KRESAL, Janez. Pregled zasteklitvenih sistemov = A review of glazing systems. <i>AR, Arhit. razisk. (Tisk. izd.)</i>. [Tiskana izd.], 7. mar. 2003, [Št.] 1, str. 56-59, ilustr.• KRESAL, Janez. Kaj usmerja razvoj arhitekturne tehnologije = Factors directing development of architectural technology. <i>AR, Arhit. razisk. (Tisk. izd.)</i>. [Tiskana izd.], 2004, [Št.] 2, str. 12-15, ilustr.• ZBAŠNIK-SENEGAČNIK, Martina, KRESAL, Janez. Sistematika fasadnih oblog = Systematics of façade cladding. <i>AR, Arhit. razisk. (Tisk. izd.)</i>. [Tiskana izd.], 2004, [Št.] 1, str. 56-61, ilustr.

1.				
Course title:	Architectural Design Theory			
Course coordinator:	doc. dr. Igor Toš			
Lecturers:	doc. dr. Igor Toš			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2.	
Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3.	
Objectives of the course and intended learning outcomes (competences):	<p>To gain the extensive knowledge of:</p> <ul style="list-style-type: none"> • complete process of intervention in environment • structure of factors that influence the architecture and the subjects participating in the intervention in environment, as well as the relation between them • methodology of intervention in environment and creative dealing with complex problems
4.	
Contents (Syllabus outline):	<p>Design as an inter-subject, interdisciplinary, multi-phase and creative process of preparations for the intervention in environment. Factors that influence architecture. Subjects in architectural processes. Design as communication, agreement, coordination and integration of contributions. The role of an architect. Aspects, types and phases of design process. The role of regulations and norms. Design as a problem solving, decision making, as a creative process. Basic concepts in psychology of creativity. Foundations of design methodology and technology, basic general and specific methods and techniques, comparison of methods. Systems methods in design and the problem of specialization. Relation between standpoints and methods, theories and practice. Problem of goal, resource and solution assessment. Value systems and criteria. Ethics and aesthetics in design.</p>

<p>5. Literature:</p>	<ul style="list-style-type: none"> • Archer, Bruce: Systematic Method for Designers. Design, 4/1963-8/1964, no. 172, 174, 176, 179, 181, 185, 188. • Broadbent, Geoffrey / Ward, Anthony (ed.): Design Methods in Architecture. London: Lund Humphries, 1969. • Joedicke, Angewandte Entwurfsmethodik für Architekten. Stuttgart: Krämer, 1976. • Laage, Gerhart / Michaelis, Holger / Renk, Heiner: Planungstheorie für Architekten. Stuttgart: DVA, 1976. • Meise, Jörg / Volwahren, Andreas: Stadt- und Regionalplanung, Ein Methodenhandbuch. Braunschweig: Vieweg, 1980. • Miller, Sam F.: Design Process: A Primer for Architectural and Interior Design (Architecture). New York: Van Nostrand Reinhold, 1995. • Mitchell, C. Thomas: New Thinking in Design: Conversations on Theory and Practice (Architecture). New York: Van Nostrand Reinhold, 1996. • Norberg-Schulz, Christian: Intention und Methode in der Architektur. Der Architekt, 3/1967, p. 218-225. • Rittel, Horst: Planen, Entwerfen, Design, Ausgewählte Schriften zu Theorie und Methodik. Stuttgart: Kohlhammer, 1992. • Toš, Igor: Arhitektura in sistemologija (doktorska disertacija). Ljubljana: Fakulteta za arhitekturo, 2003.
<p>6. Teaching methods:</p>	<p>Combination of various methods, depending on the addressed issues and the learning process: lectures, research seminars, cooperative learning/teaching, guided individual study, individual assignments, essay writing, project work, portfolio conferences, workshops.</p>
<p>7. Assessment methods:</p>	<ul style="list-style-type: none"> • scientific paper or a methodological-project study, • no further subdivision of credits is envisaged, • grading scale: pos. (6–10), neg. (1–5).
<p>8. References (3-5):</p>	<ul style="list-style-type: none"> • Majstor metode, Kroz jedan isječak o arhitektonskom nazoru Zdenka Strižića. Čovjek i prostor, 5-8/1997, vol. 44, no. 516-519, p. 56-57. • Mjesto i doprinos Zdenka Strižića arhitektonskoj teoriji u Hrvatskoj. Znanstveni referat. Simpozij: Arhitektonska teorija u Hrvatskoj u XX. stoljeću, Zagreb, 9/1997. Tiskano v: Arhitektura, 1/1998, vol. 51, no. 214, p. 166-172, ISSN 0350-3666. • Aktualnost hannoverskih principa, Podsjetnik pred EXPO 2000. Čovjek i prostor, 1-2/2000, vol. 47, no.548-549, p. 20.

1. Course title:	Integrated Practices and Building Modeling			
Course coordinator:	prof. dr. Tatjana Isaković			
Lecturers:	prof. dr. Tatjana Isaković			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<ul style="list-style-type: none"> • Aims: Prepare students for integrated practices. Assure methodological approach for effective and efficient work in collaborative practices. • Competences: Leadership of integrated teams, management of digital project documentation, application of building information modeling and application of integrated practices for different types of building projects. • Subject specific competences: Ability to constitute interdisciplinary project teams for specific building projects and be able to analyze problems, assure constant quality assurance of built environment and optimize processes.
4. Contents (Syllabus outline):	<ul style="list-style-type: none"> • approaches to integrated practices: knowledge of project life-cycle. • integrated practices and project knowledge management. • the systems thinking approach fundamentals and applications. • the project system: environments, elements and relationships. • the scope of projects and the role of design teams. • project and teamwork system analyses methodologies. • technological, organizational and process analyses for collaborative practices. • team forming, collaborative work and communication. • digital project and optimization of collaborative practices. • integrated practices with building information modeling. • designed-built best practices, documentation, archiving and re-use. • management of design teams, CAD management, small groups.

5.	Literature:	<ul style="list-style-type: none"> • Cerovsek, 2002. Computer integrated Construction, Univerza v Ljubljani, 318 str. • Kalay, 2004. Architectures New Media. MIT press, Cambridge, USA, 536 str. • Elvin, 2007. Integrated practice in Architecture, Wiley, USA, 255 str.
6.	Teaching methods:	<p>Combination of contemporary didactic methods, from lectures to individual study-presentations and e-learning options; round tables with invited guests; doctoral workshops with case studies; organized together with other elective courses or individual consultancy upon the candidate's agreement.</p>
7.	Assessment methods:	<ul style="list-style-type: none"> • evaluation of individual seminar work, its presentation and group discussion, • no further subdivision of credits is envisaged, • grading scale: pos. (6–10), neg. (1–5).
8.	References (3-5):	<ul style="list-style-type: none"> • FISCHINGER, Matej, ISAKOVIĆ, Tatjana. Distance learning of structural engineering supported by information technology. Scientific journal on applied information technology. [Online ed.], 2002, vol. 1, issue 1, str. [1-11], graf. prikazi. • FISCHINGER, Matej, ISAKOVIĆ, Tatjana. Automated design procedure for reinforced wall buildings. V: MANG, Herbert (ur.), BIĆANIĆ, Nenad (ur.), DE BORST, Rene (ur.). Computer modelling of concrete structures : proceedings of EURO-C 1994 International Conference held in Innsbruck, Austria 22nd-25th March, 1994. Mumbles: Pineridge Press, 1994, str. 965-974, graf. prikazi. • FISCHINGER, Matej, ISAKOVIĆ, Tatjana, KILAR, Vojko, SLAK, Tomaž. Sodelovanje študentov arhitekture in gradbeništva v okviru predmeta Računalniško projektiranje konstrukcij = It supported design of structures - collaboration of students of architecture and structural engineering. V: DUHOVNIK, Janez (ur.), TURK, Žiga (ur.), CEROVŠEK, Tomo (ur.). Gradbena informatika 2001 : (ob 30 letnici inštituta IKPIR) : zbornik seminarja, Ljubljana, december 2001. Ljubljana: Fakulteta za gradbeništvo in geodezijo, Inštitut za konstrukcije, potresno inženirstvo in računalništvo, 2001, str. 213-220, ilustr. • ISAKOVIĆ, Tatjana, FISCHINGER, Matej, KANTE, Peter. Bridges: when is single mode seismic analysis adequate?. Proc. Inst. Civ. Eng., Struct. build., 2003, vol. 156, issue 2, str. 165-173, graf. prikazi • FISCHINGER, Matej, ISAKOVIĆ, Tatjana, KANTE, Peter. Implementation of a macro model to predict seismic response of RC structural walls. Comput. Concr. Int. J. (Print), 2004, vol. 1, no. 2, str. 211-226, graf. prikazi. • ISAKOVIĆ, Tatjana, POPEYO LAZARO, Mauro Nino, FISCHINGER, Matej. Applicability of pushover methods for the seismic analysis of single-column bent viaducts. Earthquake eng. struct. dyn., 2008, str. 1-18, ilustr.

1. Course title:	High-Tech Architecture			
Course coordinator:	prof. Ljubomir Miščević			
Lecturers:	prof. Ljubomir Miščević			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
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3. Objectives of the course and intended learning outcomes (competences):	<p>The aim of the course is the acquiring of the needed advanced knowledge about contemporary building materials, systems and structures, which meet the requirements of architectural concepts, design and construction of high-tech architecture. Continuous development of architectural discourse and construction technologies is faster due to increasing world of discoveries, their application and monitoring. All this present a challenge for a more creative reaction of architects and a sort of obligation in pursuing and adopting the high-tech technology in architectural practice.</p>
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4. Contents (Syllabus outline):	<ul style="list-style-type: none"> • basic definitions: techniques, technology, industrial and IT era, high-tech • historical development of the contemporary high-tech • eco-tech and the environment: eco concept, utilisation of natural (vernacular) materials, renewable sources of energy, ecological (pre-) conditions relevant for architectural and urban design as well as for spatial design, destruction, architecture built from recycled materials • architectural shell, intelligent facades (Paxton, Johnson...) • futuristic architecture (from Boullé and Ledoux, Leonidov and Sant 'Elia, to Foster, Ito...) • constructivism, structuralism, parametric design • bioclimatic high-tech: (micro)climatic preconditions, geographic characteristics, insulation, topographic and other natural and artificial architectural-structural and utility systems • en-tech energy and high-tech: requirements, indicators, standards... • concepts - special types: solar, geo-solar, low-energy, passive house, energy-independent, +energy house, intelligent house • architecture of high-rise high-tech buildings • architecture of buildings for transportation and energy - environmental impact, high-tech prevention from harmful impact • high-tech wooden architecture, eco approach • extreme architecture - contemporary visions • virtual high-tech - coexistence of physical and virtual house and city
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5.	Literature:	<ul style="list-style-type: none"> • Eco-Tech, Sustainable Architecture and High Technology, C. Slessor, Thames and Hudson, London, 1997. • Low-Tech Light-Tech High-Tech, K. Daniels, Birkhäuser, 2000. • Intelligent Glass Facades, A. Campagno, Birkhäuser, 2002. • Energy Efficient Architecture, R. Gonzalo, K.J. Habermann, Birkhäuser, 2006. • Distinguishing Digital Architecture, Y.-T. Liu, Birkhäuser, 2007.
		Additional literature:
		<ul style="list-style-type: none"> • ECO-TEC, Architecture of the In-Between, A.Marras, Princeton architectural Press, 1999. • EXPO ´98 Architecture, L.Trigueiros, C.Sat, C.Oliveira, Blau. Lisboa. 1998. • S, M, L, XL, O.M.A., R.Koolhaas, B.Mau, 010 Publishers, Rotterdam, 1995. • Tecnologia, L´Arca Plus, Milano,1993 • Visions for the Future, Architectural Design, Vol. 63 No 7/8, London, 1993. • Tensile Structures, Architectural Design, Vol. 63 No 7/8, London, 1995.
6.	Teaching methods:	Lectures, seminar work, workshop.
7.	Assessment methods:	<ul style="list-style-type: none"> • oral and written examination or evaluation of seminar work or evaluation and defence of selected project work, • no further subdivision of credits is envisaged, • grading scale: pos. (6–10), neg. (1–5).
8.	References (3-5):	<ul style="list-style-type: none"> • MIŠČEVIĆ, Lj., Arhitektura energetskog i ekološkog funkcionalizma, "Čovjek i prostor", br. 11 - 12, Zagreb, 1990., UDK 71-72, YU ISSN 0011-0728, str. 10-12 • MIŠČEVIĆ, Lj., Niskoenergetska visokotehnološka (high-tech) arhitektura, međunarodni kongres "Energija i zaštita okoliša", Zbornik radova, Knjiga I, str. 403-410, Opatija, 26-28.10.1994. • MIŠČEVIĆ, Lj., Eksperimentalne improvizacije arhitekture, Frakcija, Zagreb, 1997., str. 92-99 • MIŠČEVIĆ, Lj., Pametna pročelja, Graditelj, Europska stručna naklada, Zagreb, 1998., 4/98, str. 24-44 • MIŠČEVIĆ, Lj., Prostor kao apstraktni i/ili realni medij, Forumi o održivom razvoju, Fondacija Heinrich Böll, Zagreb, ISBN 953-98520-3-X, 2004. str. 249-254

1. Course title:	Contemporary Architectural Technology			
Course coordinator:	prof. dr. Janez Kresal doc. dr. Martina Zbašnik-Senegačnik			
Lecturers:	prof. dr. Janez Kresal doc. dr. Martina Zbašnik-Senegačnik			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<ul style="list-style-type: none"> • Students acquire the technological foundation of architectural creativeness as constantly and rapidly changing processes that focus on ecological and energy motivation and the new technological improvements and innovations as well. • Subject »Modern Architectural Technology« teaches students to evaluate and design architecture with the use of modern (contemporary and cutting-edge) building materials in connection with accompanying technologies, principles and application criteria.
4. Contents (Syllabus outline):	<p>Subject is divided into following components:</p> <ul style="list-style-type: none"> • contemporary architectural technologies • building materials selection criteria • ecological building materials: natural building materials, local building materials, recycled building materials, renewable building materials • low energy building materials • hydro- and thermo insulating building materials • smart building materials; • nano building materials and • techno textiles

<p>5.</p> <p>Literature:</p> <ul style="list-style-type: none"> • Spiegel, R., Meadows, D., (2006): GREEN BUILDING MATERIALS: A GUIDE TO PRODUCT SELECTION AND SPECIFICATION, John Wiley, New York. • Horrocks, A. R., Anand, S., C.: HANDBOOK OF TECHNICAL TEXTILES. Abington: The Textile Institute, Cambridge: Woodhead Publishing, England, 2000. • Addington, M., Schodek, D.: SMART MATERIALS AND NEW TECHNOLOGIES: For the architecture and design professions. Architectural Press : Elsevier, 2005. • Stattmann, N., (2003): ULTRA LIGHT - SUPER STRONG: NEUE WERKSTOFFE FÜR GESTALTER = A NEW GENERATION OF DESIGN MATERIALS. Birkhäuser, Basel, Boston, Berlin.
<p>6.</p> <p>Teaching methods: Lectures, visiting of professional institutions.</p>
<p>7.</p> <p>Assessment methods: • evaluation of seminar work and oral examination, • no further subdivision of credits is envisaged, • grading scale: pos. (6–10), neg. (1–5).</p>
<p>8.</p> <p>References (3-5):</p> <ul style="list-style-type: none"> • ZBAŠNIK-SENEGAČNIK, Martina, KRESAL, Janez. Kriteriji za izbor gradiv. Gradb. vestn., 1998, let. 47, št. 1/2, str. 19-24, ilustr. • ZBAŠNIK-SENEGAČNIK, Martina, KRESAL, Janez. Les - konstrukcijsko gradivo v sodobni arhitekturi. Les (Ljublj.), 1998, 50, št. 7/8, str. 209-212, ilustr. • KRESAL, Janez. Kaj usmerja razvoj arhitekturne tehnologije = Factors directing development of architectural technology. AR, Arhit. razisk. (Tisk. izd.), [Tiskana izd.], 2004, [Št.] 2, str. 12-15, ilustr. • ZBAŠNIK-SENEGAČNIK, Martina, KRESAL, Janez. Sistematika fasadnih oblog = Systematics of façade cladding. AR, Arhit. razisk. (Tisk. izd.). [Tiskana izd.], 2004, [Št.] 1, str. 56-61, ilustr. • ZBAŠNIK-SENEGAČNIK, Martina, KRESAL, Janez. Predelne stene = Partition walls : raziskava, research. AR, Arhit. razisk. (Tisk. izd.). [Tiskana izd.], 2005, [Št.] 1, str. 78-79, ilustr. • ZBAŠNIK-SENEGAČNIK, Martina, KRESAL, Janez. Principi ekološke gradnje = Ecological building principles. Gradb. vestn., 1998, let. 47, št. 3/4, str. 64-69. • ZBAŠNIK-SENEGAČNIK, Martina. Tradicionalna zaščita lesa na fasadi = Traditional wood protection on facade. Les (Ljublj.), jul.- avg. 2004, letn. 56, št. 7/8, str. 236-242, ilustr. • ZBAŠNIK-SENEGAČNIK, Martina. Sodobna gradnja z ilovico = Modern building with clay. AR, Arhit. razisk. (Tisk. izd.). [Tiskana izd.], 2006, [Št.] 1, str. 22-27, ilustr. • KOPRIVEC, Ljudmila, ZBAŠNIK-SENEGAČNIK, Martina, KUŠAR, Jože. Uporaba tehničnih tekstila u visokogradnji = Use of technical textiles in building engineering = Emploi des textiles dans la construction des bâtiments = Gebrauch von technischen Textilien im Hochbau. Građevinar, stu. 2006, vol. 58, br. 11, str. 899-907, ilustr.

1. Course title:	Mass Customization of Housing			
Course coordinator:	prof. dr. José Pinto Duarte			
Lecturers:	prof. dr. José Pinto Duarte			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<p>Students acquire the knowledge of various paradigms for the design and production of mass housing, focusing on the new paradigm enabled by new technologies. Students gain an insight into the evolution of the approaches to mass housing in 20th century and are able to develop/use 21st century digital approaches. Quality is defined as the satisfaction of user requirements and the cost is controlled with recourse to computer aided production technologies that do not rely on exhaustive repetition. In traditional approaches to mass housing designers first conceived a few house models and repeated them based on market analysis. The contemporary approach aims at overcoming such limitations using computer aided design and production technologies thereby permitting to give mass produced objects some of the qualities of individually designed objects.</p>
4. Contents (Syllabus outline):	<ul style="list-style-type: none"> • General production paradigms: handcrafted, mass production, lean production, mass customization. • Approaches to mass housing: 19th century and beginning of the 20th century, the period between the Two World Wars, Post-World War II, from the 1960s to today. • Prefabrication systems: light and heavy prefabrication; linear, planar and volumetric systems. • Design systems: classical, Durand, Le Corbusier, Gropius, Fuller, Wright, Habraken's Theory and other recent approaches. • Use of computer aided and building technologies for designing user adapted mass production that give mass produced objects the qualities of individually designed objects.

<p>5. Literature:</p>	<ul style="list-style-type: none"> • Asencio, Paco, PreFab: Adaptable, Modular, Dismountable, Light, Mobile Architecture, Loft and HBi - HarperCollins Publishers, NY, 2002. • Bender, R. Una Vision de la Construcción Industrializada, GG, 1976. • Bolton, G.; Paul Geeson; John Lyle, John C. Miles An Exercise in Industrial Design, The Arup Journal, 3/1999. • Detail 41, Série 2001, 4, Modular Systems, Junho-Julho 2001. • Dluhosch, E., Design Constraints of Conventional Prefabrication Systems in Housing, Massachusetts Institute of Technology, 1991. • Duarte, J. P. Tipo e Módulo: Uma Abordagem ao Processo de Produção de Habitação. LNEC: Lisbon 1995. • Mitchell, W. J. Dream Homes in New Scientist, London, United Kingdom, June 15 2002. • Pedro, J. B., Programa Habitacional: Habitação. Coleção Informação Técnica e Arquitectura, nº5, LNEC, Lisboa, 1999. • Pedro, J. B., Programa Habitacional: Espaços e compartimentos. Coleção Informação Técnica e Arquitectura, nº5, LNEC, Lisboa, 1999. • Pedro, J. B., Indicadores de Qualidade Arquitectónica Habitacional, PhD Thesis, Faculdade de Arquitectura, Universidade do Porto, Porto, 2000. • Wardell, Charles, Architect-in-a-box. In The Builder's Magazine, U.S.A., October 2000.
<p>6. Teaching methods:</p>	<p>The course starts with an opening lecture and then it is divided into five modules. Each module includes a lecture, followed by an explanation of concepts and a practical exercise. The course ends with a final presentation of work by the students.</p> <p>Combination of contemporary didactical methods (blended learning) is in use: roundtable discussions, doctoral workshops with case studies; organized together with other elective courses or individual consultancy upon the candidate's agreement.</p>
<p>7. Assessment methods:</p>	<ul style="list-style-type: none"> • evaluation of practical work/exercises: 5 * 10% = 50% and evaluation of the final project or theoretical paper: 50%; • no further subdivision of credits is envisaged; • grading scale: pos. (6–10), neg. (1–5).
<p>8. References (3-5):</p>	<ul style="list-style-type: none"> • DUARTE, J.P. Towards the Mass Customization of Housing: the grammar of Siza's houses at Malagueira, in Environment and Planning B: Planning and Design 2005, volume 32 (3), 347-380. • DUARTE, J.P. A discursive grammar for customizing mass housing: the case of Siza's houses at Malagueira. Automation in Construction Volume 14, Issue 2, March 2005, Pages 265-275. • Duarte, José P., ROCHA, João M., DUCLA, Gonçalo. Unveiling the structure of the Marrakech Medina: A shape grammar and an interpreter for generating urban form, AIEDAM: Artificial Intelligence for Engineering, Design, and Manufacturing (2007), 21:317-349. • DEBORAH, Benrós; Duarte, José P; BRANCO, Fernando (2007) A System for Providing Customized Housing; V: DONG, Andy, VANDE MOERE, Andrew (ur.): Computer Aided Architectural Design Futures; Springer Netherlands, 153-166.

1. Course title:	Fire Safety of Built Environment			
Course coordinator:	doc. dr. Alojz Muhič			
Lecturers:	doc. dr. Alojz Muhič			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	The course teaches students to use the results of systematic investigation of dangers in built environment and design possible urban-planning and architecture-constructional as well as other protective measures against dangers in built environments. The results of danger studies are giving rise to the safety culture in modern design practice.
4. Contents (Syllabus outline):	<p>Dangers/hazards in built environment are divided into:</p> <ul style="list-style-type: none"> • natural (elementary) - geologic (earthquake), hydrologic (flood), or climatic (storms), and/or • human-caused activities (explosions, fires, pollution, transport), epidemic, criminal (negligence, thefts, homicides) or hostile (sabotage, terrorist attacks, wars). <p>Architects must consider also safety of people and assets in the building itself and its surroundings and legislation:</p> <ul style="list-style-type: none"> • safety against fires - causes of fires and explosions, system of safety measures for prevention of fires, for restraint of spreading of fires, for evacuation and rescuing of people and assets and for intervention of firemen, firefighting devices, etc. • safety at work - causes of danger, technology, measures behind expedition and reduction of danger such as: physical (falls, explosions, hits, vibrations, noise, hot blow, light blow, electric blow, etc), chemical (smoke, poisonous and pungent substances, etc.) biological or any other. • safety against pollution - causes of pollution of air, waters and lands, measures for expedition of danger of environment pollution of, water treatment plants.

<p>5. Literature:</p>	<ul style="list-style-type: none"> • Kurent, T., Marinko, J., Muhič, L., 1976: Požarna varnost v industrijskih in drugih zgradbah s stališča projektanta. Založba »Srečno«, Ljubljana. • Delo in varnost. Revija za zdravje in varstvo pri delu ter varstvo pred požarom. ZVD Zavod za varstvo pri delu d.d., Ljubljana. • Požar. Strokovna revija za varstvo pred požari. Slovensko združenje za požarno varstvo, Združenje slovenskih poklicnih gasilcev in Gasilska zveza Slovenije, Ljubljana. • Ujma. Revija za vprašanja varstva pred naravnimi in drugimi nesrečami. Uprava RS za zaščito in reševanje Ministrstva za obrambo, Ljubljana.
<p>6. Teaching methods:</p>	<p>Teaching consists on lectures concerning general problems of safety, seminars, consultations concerning safety problems (in Slovenia and abroad) and individual study of a chosen safety problem. Term paper on selected subject is expected as final course result.</p>
<p>7. Assessment methods:</p>	<ul style="list-style-type: none"> • term paper on analyzed safety problem and oral examination concerning general knowledge concerning other safety problems in built environment, • no further subdivision of credits is envisaged, • grading scale: pos. (6–10), neg. (1–5).
<p>8. References (3-5):</p>	<ul style="list-style-type: none"> • MUHIČ, Alojz. Prostorsko, urbanistično in arhitektonsko načrtovanje z vidika varstva pred nesrečami. 2 del. Ujma (Ljublj.), št. 5 (1991), str. 236-240. Ilustr. • MUHIČ, Alojz. Dilema upoštevanja normativov iz predpisov ali upoštevanja rešitev, dobljenih po inženirskih metodah varstva pred požarom = Dilemma between two alternatives - to consider provisions according to regulations or to consider solutions according to methods of fire engineering. V: Redni letni seminar Požarna preventiva in reševanje, Portorož, 13.-14. maj 1998. Ljubljana: Fakulteta za kemijo in kemijsko tehnologijo, Oddelek za tehniško varnost, 1998, str. 94-101, ilustr. • MUHIČ, Alojz, GOMEZELJ, Biba. Dileme v zvezi s študijami varstva pred požarom = Dilemmas in connection with the studies of protection from the fire. V: [Zbornik referatov]. Ljubljana: Fakulteta za kemijo in kemijsko tehnologijo, Oddelek za tehniško varnost, 2001, str. 77-87. • MUHIČ, Alojz, GOMEZELJ, Biba. Načela določanja požarnih oddelkov = Principles of compartmentation. V: Varstvo pri delu, varstvo pred požari in medicina dela : posvet z mednarodno udeležbo, Portorož, 14. - 15. maj 2002. Ljubljana: Fakulteta za kemijo in kemijsko tehnologijo, 2002, str. 256-264. • DRUSANY, Vladimir, MUHIČ, Alojz. Evakuacijska in varnostna pot z dodatnimi možnostmi za večjo varnost ob potresu ali požaru. Delo + varnost, 1995, 40, št. 4, str. 182-184, ilustr.

1. Course title:	Environmental Physics for Architects			
Course coordinator:	dr. Jaume Roset, TEU ('Titular Escuela Universitaria')			
Lecturers:	dr. Jaume Roset, TEU ('Titular Escuela Universitaria')			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<p>Student acquires:</p> <ul style="list-style-type: none"> • a deeper insight into environmental calculations applied in architecture • capabilities to do 'simple' calculations in thermal, acoustical and lighting topics • the 'tools' to introduce innovative combinations of design solutions into architectural practice
4. Contents (Syllabus outline):	<ul style="list-style-type: none"> • introduction: relation to previous studies • thermal • acoustics • lighting • architectural combinations among them
5. Literature:	<ul style="list-style-type: none"> • Heat transfer. A.J. Chapman. McMillan, 1983 • Architectural acoustics. M.D. Egan. McGraw-Hill, 1988 • Building physics: Lighting. W.R. Stevens. Pergamon Press, 1969

6. Teaching methods:	E-learning and blended learning: materials to be studied on the world wide web, lectures; combined evaluation: e-exams plus presentation of a project.
7. Assessment methods:	<ul style="list-style-type: none"> • e-learning: examination – delivered by candidates in two working days; presentation of project work concentrated in 1 week, • no further subdivision of credits is envisaged, • grading scale: pos. (6–10), neg. (1–5).
8. References (3-5):	<ul style="list-style-type: none"> • Archisun program for environmental evaluation: www.upc.es/aie • J.Roset. Good calculation: Making knowledge complete, clear and valued. Proceedings of the Alliance for Global Sustainability (AGS2007), p.135-136. ISBN: 978-91-976534-2-8. AGS Focus Centre at Chalmers. Barcelona. 18-21March 2007 • J.Roset, R.Serra. A language for representation of physic-architectural concepts. World Renewable Energy Congress IX. p. LEA66 (6 pages). Edited by WREC. ISBN 008 44671 X. University of Florence (Italy).19 - 25 August 2006. • R.Serra, A.Isalgue, J.Roset, H.Coch. Energy, complexity and the city. Proceedings of WORLD RENEWABLE ENERGY CONGRESS VIII.. ISBN/ISSN: 008-044470-9. (2004). • R. Serra, J.Roset, H.Coch. ARCHISUN. "A program that evaluates the energy behaviour of a building" p.229-234 Proceedings of the XIX PLEA. TOULOUSE, FRANCE 22-24 JULY 2002 • J.Roset. City Scales: Basic Calculations. p.108 – 111 Book of Abstracts. The 2nd COST UCE Conference The future of the city. New Quality for Life. BLED, SLOVENIA 14-15 SEPTIEMBRE 2001. • J.Roset, R.Serra. Learning Physics at the School of Architecture TIA 2000 Third International Conference. Sustainable Buildings for the 21st Century: teaching issues, tools and methodologies for sustainability. Proceedings: Comunicación 1.16 (8 páginas) European Commission. DG for Energy and Transport Thermie type B action. STR - 1979 - 98 – IT Oxford, England 9 -12 Julio 2000 • Isalgué, H.Coch, J.Roset. Environmental Evaluation of an Urban Sector p. 429 - 436 International Building Physics Congress ISBN 90-6814-112-0 EINDHOVEN, 18 - 21 SEPTIEMBRE 2000.

1. Course title: Energy and Environment Assessment of Buildings				
Course coordinator: prof. dr. Sašo Medved				
Lecturers: prof. dr. Sašo Medved				
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS: 5				

2. Prerequisites:		<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):		<p>Students learn about environment related problems caused by construction and utilization of contemporary buildings and settlements due to the materials and energy demand. Candidates also learn about environmental spheres, natural processes in environmental spheres and follow their change through anthropogenic sources of pollution. Students become aware of importance of rational use of materials and energy in buildings and learn about principles and technologies for energy supply based on dissipate and district energy systems. Analytical and numerical methods for energy and environment assessments of buildings are introduced. Students acquire methods for technology and economy based feasibility studies of buildings related environment protection technologies.</p>
4. Contents (Syllabus outline):		<ul style="list-style-type: none"> • environmental spheres and natural processes within environmental spheres • energy and environment • energy and modern society • sustainable development and energy supply and demand • modeling of pollutant emissions in environmental spheres • principles and technologies of rational use of energy in buildings • principles and technologies for utilization of renewable energy sources by dissipate and district systems • modeling of energy demand in buildings • energy efficiency assessment of buildings • environmental assessment of buildings • feasibility studies of low energy and environment protection technologies in buildings

<p>5.</p> <p>Literature:</p> <ul style="list-style-type: none"> • B. Edwards (2005); Rough guide to sustainability; RIBA Enterprises, UK • M. Santamouris et al (2006): Environmental design of urban buildings, Earthscan, UK • G. Hausleden et al (2004); Clima design; Callwey, Germany • L.D.D. Harvey (2006); A handbook on low-energy buildings and district energy systems; Earthscan, England • S. Medved; P. Novak (2000), Varstvo okolja in obnovljivi viri energije; Univerza v Ljubljani, Fakulteta za strojništvo • H. Scheer (2004); Renewable energy for a sustainable global future, EARHTSCAN, UK • G.M. Masters (1991); Introduction to environmental engineering and science, Prentice-Hall International Editions, USA • O. Lewis (2001); A Green Vitruvius - principles and practice of sustainable architectural design; University of Dublin, Ireland
<p>6.</p> <p>Teaching methods: Lectures and seminar work.</p>
<p>7.</p> <p>Assessment methods:</p> <ul style="list-style-type: none"> • exam and public presentation of seminar work, • no further subdivision of credits is envisaged, • grading scale: pos. (6–10), neg. (1–5).
<p>8.</p> <p>References (3-5):</p> <ul style="list-style-type: none"> • MEDVED, Sašo. Ecological footprints of Ljubljana region:, Environmental and spatial development of Ljubljana region for the period 1990-2015. University of Ljubljana, Faculty of Mechanical Engineering, 2006 • MEDVED Sašo. Chapters: Intelligent control and advance building management system, Applied energy and resources management in the urban environment in Applied lighting technology (coauthor Ciril Arkar) published in Environmental Design of Urban Buildings – an integrated approach; M. Santamouris (ur.); James&James (Science Publisher) Ltd, 2006 • VIDRIH, Boris, DOLINAR, Mojca, MEDVED, Sašo. Povezava modela podnebnih sprememb z modelom toplotnega odziva stavb - primer Slovenije = The connection between the climate change model and a building's thermal response model: a case of Slovenia. Stroj. vestn., 2006, letn. 52, št. 9, str. 568-586. • GEROS, Vassilious, SANTAMOURIS, Matheos, AMOURGIS, S., MEDVED, Sašo, MILFORD, E., ROBINSON, G., STEEMERS, Koen, KARATASOU, S. A distant-learning training module on the environmental design of urban buildings. Renew. energy. [Print ed.], 2006, letn. 31, št. 15, str. 2447-2459. • MEDVED Sašo, NOVAK Peter; Varstvo okolja in obnovljivi viri energije, Univerza v Ljubljani, Fakulteta za strojništvo, 2000

1. Course title:	Microclimate of Urban Areas and Buildings			
Course coordinator:	prof. dr. Sašo Medved			
Lecturers:	prof. dr. Sašo Medved			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<ul style="list-style-type: none"> • Energy and climate in urban built environment: candidates acquire the knowledge about mass and heat flows in urban environment, about the specifics of heat transfer in built environment with emphases on buildings, vegetation and water areas and how they influence the urban climate. Analytical and numerical models and tools for air flows analysis, pollutants emissions and heat island modelling are studied. Students learn about interaction between local (urban) climate and energy demand and get to know measures for mitigation of local climate which leads into improved living comfort and rational use of energy in urban environment. • Advance heat transfer in buildings: Students learn about steady and unsteady heat and mass transfer in buildings envelopment and buildings. Candidates get to know theoretical and numerical models of buildings thermal response modelling including envelopment building constructions and building constructions, as well as indoor living comfort. Students master adaptive thermal comfort models as tools for indoor environment planning. Candidates get to know and practice the use of tools for energy demand and thermal comfort computer simulations.

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4. Contents (Syllabus outline):	<ul style="list-style-type: none"> • modelling of energy and mass flows in the urban environment • sensible and latent heat storage in built environments and nature • microclimatic balance in urban environment • flows ratio and transfer of pollutants in urban environment • mechanisms of heat transfer • discreet and gradual heat transfer through homogenous and inhomogeneous built structures • discreet and gradual water and humidity transfer through homogenous and inhomogeneous built structures • transfer of heat through transparent envelopments of buildings • heat-loss, modelling and evaluation of joints • transfer of sun radiation and sunlight in buildings (modelling) • heat storage in built structures • adaptive models of living thermal comfort • thermal response of buildings • planning of interior living environment and energy use based on the thermal response of buildings
5. Literature:	<ul style="list-style-type: none"> • M. Santamouris et all (2006): Environmental design of urban buildings, Earthscan, UK. • M. Santamouris et all (2001): Energy and climate in the urban environment, James&James, UK. • M. G. Davis (2004): Buildings heat transfer (izbrana poglavja), John Wiley & Sons, England. • H. Hens (2007): Building physics – heat, air and moisture; Ernst & Sohn, Germany. • Ursula Eicker (2003): Solar technologies for buildings, John Wiley & Sons, England, Germany. • B. Keller; Bautechnologie III – Die energetik des gebaude; ETH Zurich, Swiss. • S. Medved; P. Novak (2000), Varstvo okolja in obnovljivi viri energije; Univerza v Ljubljani, Fakulteta za strojništvo.
6. Teaching methods:	Lectures and seminar work.
7. Assessment methods:	<ul style="list-style-type: none"> • examination and public presentation of seminar work, • no further subdivision of credits is envisaged, • grading scale: pos. (6–10), neg. (1–5).
8. References (3-5):	<ul style="list-style-type: none"> • ČERNE, Boštjan, MEDVED, Sašo. Determination of transient two-dimensional heat transfer in ventilated lightweight low sloped roof using Fourier series. <i>Build. environ..</i> [Print ed.], 2007, letn. 42, št. 6, str. 2279-2288. • MEDVED, Sašo, ARKAR, Ciril. Correlation between the local climate and the free-cooling potential of latent heat storage. <i>Energy build..</i> [Print ed.], 2008, letn. 40, št. 4, str. 429-437. • MEDVED, Sašo, ARKAR, Ciril, ČERNE, Boštjan. Development of lightweight elements TRIMO for solar energy utilization: Research project University of Ljubljana, Faculty of Mechanical Engineering, 2006 – 2007 • MEDVED Sašo. Chapters: Intelligent control and advance building management system, Applied energy and resources management in the urban environment in Applied lighting technology (coauthor Ciril Arkar) published in <i>Environmental Design of Urban Buildings – an integrated approach</i>; M. Santamouris (ur.); James&James (Science Publisher) Ltd, 2006 • leading coordinator of projects: EAST GSR; EIE/05/208/S12.420214 2006-2008; SOLARGE; EIE/04/082/S07.38178; 2005-2007; ET4EB; UK/05/B/F/PP-162_332 (Leonardo da Vinci) 2005-2007; SOLAIR; EIE/06/034/SI2.446612; 2007-2009, REMINING LOW-EX FP5 2007-2012, TRANS-SOLAR; EIE/07/117/SI2.466838, 2007-2009

1. Course title:	Renewable Sources of Energy in Buildings			
Course coordinator:	doc. dr. Martina Zbašnik-Senegačnik			
Lecturers:	doc. dr. Martina Zbašnik-Senegačnik			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<p>The student acquires and is able to incorporate the gained knowledge of contemporary principles into architectural planning, which drastically reduce building's energy demand. This means reduction of non-renewable energy and therefore the reduction of greenhouse gas-emissions. That is not only ecological demand but also international obligation.</p> <p>Contemporary technology introduces the new components in the architecture, which assure the living comfort, without negative influences on the environment and human being. The subject will present the newest contemporary technologies for low-energy and passive houses – for new and refurbished buildings.</p>
4. Contents (Syllabus outline):	<p>The subject is divided into the following components:</p> <ul style="list-style-type: none"> parameters of living comfort building technologies of passive and low-energy houses the components of passive and low-energy houses (a thermal insulation, windows and doors, the systems of warming and ventilation, sun protection, etc) the ecological passive houses (houses made from natural materials: straw, clay, earth, etc) big passive houses (offices, schools and kindergartens, mountain huts, factories, etc) the building renovation in passive house technology (thermal insulation, thermal bridges, ventilation, warming, etc) the newest technologies (activation of concrete mass, cooling and warming in the wall, etc)

<p>5.</p> <p>Literature:</p> <ul style="list-style-type: none"> • Grobe, C., (2002), Passivhäuser, Verlag Georg D.W. Callwey, München. • Schäfer H., (2006), VOM ALTBAU ZUM PASSIVHAUS, Vdm Verlag Dr. Müller, Saarbrücken. • Bohne, D., (2004), Ökologische Gebäudetechnik, Verlag W. Kohlhammer, Stuttgart. • Oehler, S., (2004), Große Passivhäuser, Verlag W. Kohlhammer, Stuttgart. • Schöberl, H. et al, (2005), Anwendung der Passivtechnologie im sozialen Wohnbau, Fraunhofer IRB Verlag, Stuttgart.
<p>6.</p> <p>Teaching methods: Lectures, visiting of professional institutions.</p>
<p>7.</p> <p>Assessment methods:</p> <ul style="list-style-type: none"> • oral examination, evaluation of seminar work, • no further subdivision of credits is envisaged, • grading scale: pos. (6–10), neg. (1–5).
<p>8.</p> <p>References (3-5):</p> <ul style="list-style-type: none"> • ZBAŠNIK-SENEGACNIK, Martina. Pasivna hiša. V Ljubljani: Fakulteta za arhitekturo, 2007. 130 str., ilustr. • ZBAŠNIK-SENEGACNIK, Martina. Construction cost comparison between low-energy houses and passive houses. V: VORŠIČ, Jože (ur.). 16. Mednarodno posvetovanje Komunalna energetika, 15. do 17. maj 2007, Maribor, Slovenija. Komunalna energetika. V Mariboru: Univerza, 2007. • ZBAŠNIK-SENEGACNIK, Martina. Experiences in planning and construction of a low-energy house in Slovenia. V: FRANKOVIČ, Bernard (ur.). Međunarodni kongres Energija i okoliš 2006. Rijeka: Hrvatski savez za sunčevu energiju, 2006, str. 339-346, ilustr. • ZBAŠNIK-SENEGACNIK, Martina, KRISTL, Živa. Sanacijski posegi na fasadi : energetska prenova zgradb. V: ZUPANČIČ-STROJAN, Tadeja (ur.). Povojne stanovanjske soseske v Sloveniji : metodologija vrednotenja in prenove : methodology of evaluation and renewal. Ljubljana: Fakulteta za arhitekturo; Dunaj: Technische Universität Wien, 2002, str. 237-252, ilustr. • ZBAŠNIK-SENEGACNIK, Martina. Sodobna gradnja z ilovico = Modern building with clay. AR, Arhit. razisk. (Tisk. izd.). [Tiskana izd.], 2006, [Št.] 1, str. 22-27, ilustr.

1. Course title:	Selected Topics in Building and Construction History			
Course coordinator:	doc. dr. Lara Slivnik			
Lecturers:	doc. dr. Lara Slivnik			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<ul style="list-style-type: none"> • understanding of the history of architectural and constructional technology, • detailed knowledge of the chosen construction types and their influences on contemporary architectural developments, • ability of trend-simulations and predictions.
4. Contents (Syllabus outline):	The course offers a critical examination of the transformations in architectural and constructional history: Crystal Palace, Palais des Machines, Le Corbusier's pavilion L'Esprit Nouveau, Mies's Barcelona Pavilion, etc and more recent from Hannover EXPO 2000 to Shanghai EXPO 2010.
5. Literature:	<ul style="list-style-type: none"> • Bernik, S., 2004: Slovenska arhitektura dvajsetega stoletja. Mestna galerija, Ljubljana. • Curtis, W.J.R., 1996: Modern Architecture Since 1900. Phaidon, London. • Margolius, I., 2002: Architects + Engineers = Structures. Wiley-Academy, Chichester. • Pevsner, N., 1976: A History of Building Types. Thames and Hudson, London. • Puente, M., 2000: 100 años pabellones de exposición / 100 Years Exhibition Pavilions. Editorial Gustavo Gili, Barcelona. • Sebestyen, G., 2003: New Architecture and Technology. Architectural Press, Oxford.

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6.	Teaching methods:	Lectures, consultations, exchange of views.
7.	Assessment methods:	<ul style="list-style-type: none">• student writes an essay which refers to his/hers doctoral thesis,• no further subdivision of credits is envisaged,• grading scale: pos. (6–10), neg. (1–5).
8.	References (3-5):	<ul style="list-style-type: none">• SLIVNIK, Lara, KUŠAR, Jože. Arhitektura paviljonov na svetovni razstavi leta 1925 = the architecture of pavilions at the 1925 world fair. AR, Arhit. razisk. (Tisk. izd.). [Tiskana izd.], 2004, [Št.] 1, str. 50-55, ilustr.• SLIVNIK, Lara, KUŠAR, Jože. Gospodarsko razstavišče = the Ljubljana fairground. AR, Arhit. razisk. (Tisk. izd.). [Tiskana izd.], 2006, [Št.] 1, str. 34-39, ilustr.• SLIVNIK, Lara, KUŠAR, Jože. Izbor konstrukcij s svetovnih razstav = Selection of structures from world exhibitions. AR, Arhit. razisk. (Tisk. izd.). [Tiskana izd.], 2007, [Št.] 1, str. 25-32, ilustr.

1. Course title:	Structures in Architecture			
Course coordinator:	prof. dr. Vojko Kilar			
Lecturers:	prof. dr. Vojko Kilar			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<p>The course is primarily intended for the students with the interest in structures in architecture, structural engineering, design or industrial design.</p> <p>The course introduces the student to the simplified process of analysis and design of contemporary structures. It gives specific knowledge on how to:</p> <ul style="list-style-type: none"> • conceptually design the structure, • select appropriate material, • ensure adequate strength and stability, • estimate basic dimensions, • prepare computer simulation model, • prove safety of selected structural system. <p>The term structure refers to any kind of load bearing system such as building structure or any other design, industrial design or similar product.</p>
4. Contents (Syllabus outline):	<p>The course is oriented toward the preliminary design and analysis of structures. Main teaching topics include: computer models, loading, materials and simulations of structural behaviour with computer programs. Basic knowledge on selected programs for static analysis and basic information on structural modelling are given. Special attention is given to the communication between 3D architectural models and structural mathematical models. The course is also supported with prepared computer simulations of structural behaviour which enable a more direct connection with engineering component of the course.</p>

<p>5. Literature:</p>	<ul style="list-style-type: none"> • BENEDIK, Branko S. Statika konstrukcij, Fakulteta za gradbeništvo, Maribor, 1998. • KILAR, Vojko. Potresna obtežba, potresni spektri in poenostavljeni račun pri potresni obtežbi : študijsko gradivo za študente FA. Ljubljana: Univerza v Ljubljani, Fakulteta za arhitekturo, 2003. • SLAK, Tomaž, KILAR, Vojko. Potresno odporna gradnja in zasnova konstrukcij v arhitekturi: znanstvena monografija. Ljubljana: Univerza v Ljubljani, Fakulteta za arhitekturo, 2005. • DUHOVNIK, Janez. Statika linijskih konstrukcij I. 2. izd. Ljubljana: Univerza v Ljubljani, Fakulteta za gradbeništvo in geodezijo, 2005. • KILAR, Vojko. Izbira dimenzij osnovnih elementov konstrukcij, študijsko gradivo za študente FA. Ljubljana: Univerza v Ljubljani, Fakulteta za arhitekturo, 2008. • LYALL, Sutherland. Masters of Structure, Engineering Today's Innovative Buildings. Laurence King Publishing Ltd, London, 2002. • SEWARD, Derek. Understanding Structures, Analysis, Materials, Design. Palgrave Macmillan, London, 2003. • CHEN, Wai-Fah, LUI, Eric M. Handbook of Structural Engineering, Second Edition, CRC Press, New York, 2005. • CHARLESON, Andrew W. Structure as architecture. A source book for architects and structural engineers. Elsevier - Architectural press, Oxford, UK, 2005. • SAP2000, Integrated Finite Element Analysis and Design of Structures, Computers and Structures, Inc., Berkeley, California, USA, 2008 • selected papers and chapters from recent publications (copies)
<p>6. Teaching methods:</p>	<p>Teaching process will be a combination of lectures, seminar work and project oriented work; the subject consists of several lectures and preparation of theoretical or practical application in the form of individual project.</p>
<p>7. Assessment methods:</p>	<ul style="list-style-type: none"> • each student with a cooperation of the professor selects his individual structural problem, which is preferably related to his doctoral thesis; the student presents and defends his individual project at the end of the semester, • no further subdivision of credits is envisaged, • grading scale: pos. (6–10), neg. (1–5).
<p>8. References (3-5):</p>	<ul style="list-style-type: none"> • KILAR, Vojko, FAJFAR, Peter. Simple push-over analysis of asymmetric buildings. Earthquake eng. struct. dyn., vol. 26, no. 2, str. 233-249, 1998. • KILAR, Vojko, SLAK, Tomaž. Zasnova armirano-betonskih in zidanih konstrukcij na potresnih območjih = Conceptual design of reinforced concrete and masonry structures in earthquake prone areas. AR, Arhit. razisk. [Št.] 1, str. 30-35, 2003. • KILAR, Vojko, KRSTULOVIĆ-OPARA, Neven. Seismic behavior of high-performance fiber reinforced composite frames. International journal of IT in architecture, engineering and construction, str. 225-238, 2005. • SLAK, Tomaž, KILAR, Vojko. Zasnova lesenih in jeklenih konstrukcij na potresnih območjih = Concept of timber and steel structures in earthquake-prone areas. AR, Arhit. razisk, [Št.] 1, str. 46-51, 2005. • KILAR, Vojko, KOREN, David. Potresna izolacija in neregularna zasnova v arhitekturi = Earthquake resistant insulation and irregular layouts in architecture. AR, Arhit. razisk, str. 57-66, 2007.

1. Course title:	Design of Shell Structures			
Course coordinator:	prof. Boštjan Brank			
Lecturers:	prof. Boštjan Brank			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<p>The course is intended for students who have an interest to study design of curved structures from the viewpoints of architecture and structural engineering.</p> <p>The course teaches how to design modern curved structures (named also shell structures or shells). The focus will be on the following:</p> <ul style="list-style-type: none"> identification of problems related to the shell design how to choose a proper (stable) shape how to prepare a computer model for analysis of shell structure behavior how to estimate safety of designed structure
4. Contents (Syllabus outline):	<ul style="list-style-type: none"> types of shell structures: light reinforced concrete shell, shell made of composite laminates, a system of metal or timber beams that has a curved shape, prestressed textile membrane characteristics of shells structures: light, slender, curved and aesthetically pleasing constructions over larger spans production/building of shells: as thin shells out of reinforced concrete; array of linear elements that form the shell; prestressed membranes problems of shells: safety and stability issues problem solving: to find such a shape that is aesthetic on one hand and stable for the design loads on other hand

<p>5. Literature:</p>	<ul style="list-style-type: none"> • J. Chilton. The Engineer's Contribution to Contemporary Architecture, Heinz Isler. Thomas Telford, 2000. • Charleson. Structure as Architecture: A Source Book for Architects and Structural Engineers. Architectural Press, 2005. • SAP2000. Integrated Finite Element Analysis and Design of Structures. Computers and Structures, Berkeley, 2008. • K.-M. Koch, K.J. Habermann. Membrane Structures: The Fifth Building Material, Prestel Publishing, 2005. • C. Meyer, M.H. Sheer, Do concrete shells deserve another look? Concrete International 27, 43-51, 2005.
<p>6. Teaching methods:</p>	<p>Combination of lectures, seminar discussions and individual, project oriented work.</p>
<p>7. Assessment methods:</p>	<ul style="list-style-type: none"> • each student will be assigned an individual seminar work that will be carried out under professor's supervision and will be presented and defended at the end of the semester; • no further subdivision of credits is envisaged; • grading scale: pos. (6-10), neg. (1-5).
<p>8. References (3-5):</p>	<ul style="list-style-type: none"> • KEGL, Marko, BRANK, Boštjan. Shape optimization of truss-stiffened shell structures with variable thickness. Comput. methods appl. mech. eng.. [Print ed.], 2006, vol. 195, 19/22, 2611-2634. • KEGL, Marko, BRANK, Boštjan, HARL, Boštjan, OBLAK, Maks. Efficient handling of stability problems in shell optimization by asymmetric "worst case" shape imperfection. Int. j. numer. methods eng., 26 February 2008, vol. 73, iss. 9, str. 1197-1216. • BRANK, Boštjan, KORELC, Jože, IBRAHIMBEGOVIĆ, Adnan. Dynamic and time-stepping schemes for elastic shells undergoing finite rotations. Comput. struct. , 2003, vol. 81, 12, 1193-1210. • KEGL, Marko, BRANK, Boštjan, HARL, Boštjan, OBLAK, Maks. Optimizacija oblike, debeline in "najneugodnejše imperfektnosti" uklonsko občutljivih lupin. V: KORELC, Jože (ur.), ZUPAN, Dejan (ur.). Kuhljevi dnevi 2007, Snovik, 20.-21. 9. 2007. Zbornik del. Ljubljana: Slovensko društvo za mehaniko, 2007, 107-114. • BRANK, Boštjan, MAKAROVIČ, Matjaž. On non-linear response of polyester tanks: comparison of experimental and numerical results. V: HADDAD, Y... M. (ur.). Advanced multilayered and fibre-reinforced composites, (NATO Asi series, 3, High Technologi, vol. 43). Dordrecht [etc.]: Kluwer Academic Publishers, 1998, 497-508.

1. Course title:	Load-Bearing Conditions			
Course coordinator:	prof. dr. Jože Kušar			
Lecturers:	prof. dr. Jože Kušar			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	The students acquire the knowledge into the specific field of the load-bearing conditions investigation. The knowledge is gained in topics: structural concepts, choice of dimensions, and materials.
4. Contents (Syllabus outline):	<p>The optimal dimensions of structural element depend on loading conditions or their combination that will with certain probability occur in its operating life. It is important that we establish a damage contribution of each such condition state which contributes to the growing damage of the critical cross section. These damage contributions can be determined from numerous parameters such as strength, resistance and durability of the material used to fabricate the structural element.</p> <p>The parameters related to strength, resistance and durability of the material can be determined for every material, section shape form or static system just once. In this way the characteristic values of all parameters are obtained.</p> <p>The variation of material properties and possible damage, which are the consequence of changing element shape factor, determine the probability of data about structural element strength and durability. If the material data change, also the data about strength and durability are changing.</p>

5.	Literature:	<ul style="list-style-type: none"> • Ching, F.D.K., 1994: A visual dictionary of architecture. John Wiley & sons, New York. • Kušar, J., 1999: Konstruiranje in dimenzioni-ranje – gradivo za uporabo evrokod standardov UL, Fakulteta za arhitekturo, Ljubljana. • Eurocode 1, 1991-2007: Basis of design and actions on structures, structural eurocodes, Slovenski inštitut za standardizacijo, Ljubljana. • Eurocode 8, 1991-2007: Design provisions for earthquake resistance of structures, structural eurocodes, Slovenski inštitut za standardizacijo, Ljubljana.
6.	Teaching methods:	Lectures, consultations, exchange of views.
7.	Assessment methods:	<ul style="list-style-type: none"> • evaluation of written essay that is correlated with student doctoral thesis, • no further subdivision of credits is envisaged, • grading scale: pos. (6–10), neg. (1–5).
8.	References (3-5):	<ul style="list-style-type: none"> • Kušar, Jože. Hay racks - unusual monuments to Slovenian joinery, beauty of its own. <i>World wood</i>, 1998, vol. 51, no. 6, str. 8-9, ilustr. • Kušar, Jože. Dimenzioniranje lesenih nosilcev s strukturo medsebojnih antropometričnih mer egiptovskega komolca. <i>AR, Arhit. razisk. (Tisk. izd.)</i>. [Tiskana izd.], 2002, [Št.] 1, str. 32-35, ilustr. • Hrovatin, Jasna, Kitek Kuzman, Manja, Kušar, Jože. Členitev sistemov lesene motažne gradnje glede na postopek gradnje = Dividing of wood prefabricated systems according to building procedure. <i>Les (Ljublj.)</i>, 2005, let. 57, št. 12, str. 360-365. • Koprivec, Ljudmila, Zbašnik-Senegačnik, Martina, Kušar, Jože. Uporaba tehniških tekstila u visokogradnji = Use of technical textiles in building engineering = Emploi des textiles dans la construction des bâtiments = Gebrauch von technischen Textilien im Hochbau. <i>Građevinar, stu.</i> 2006, vol. 58, br. 11, str. 899-907, ilustr.

1. Course title:	Basics of Bridge Design			
Course coordinator:	prof. dr. Tatjana Isaković			
Lecturers:	prof. dr. Tatjana Isaković prof. dr. Matej Fischinger			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> • for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) • for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<p>The course is an introduction and overview of the design of bridges. Students will learn the following topics:</p> <ul style="list-style-type: none"> • conceptual design of bridges, • choice of the adequate structural system, • ensure adequate strength and stability, • estimate the dimensions of the structural elements, • develop an adequate computer model of the bridge suitable for its analysis, • prove safety of the bridge.
4. Contents (Syllabus outline):	<p>In bridges, the structural conception is more strictly related to aesthetics and functionality than in other types of structures. Therefore, all these aspects should be considered in the design of bridges. Consequently, the course is organized to be attended by students of architecture, who are interested in bridges, or those who are interested in the design of bridges in general and want to obtain more knowledge about their overall design. The main topics of the course are conceptual design, analysis and basic procedures for estimation of the dimensions of structural elements. Students will obtain the knowledge about computer based modelling of bridges, including modelling of different materials, loads and different groups of structural elements. He or she will obtain the knowledge about the computer software, which is intended for the analysis and design of bridges. The special attention will be devoted to the proper modelling. Proper procedures for estimation of the bridge strength will be considered, too. The course is supported with computer simulations of structural response. Lectures will be combined with project base and problem oriented work.</p>

<p>5. Literature:</p>	<ul style="list-style-type: none"> • Eurocode standards for structural design (bridges) • Splošna tehnična specifikacija za cestne premostitvene objekte (mostove), Republika Slovenija, Ministrstvo za promet in zveze, junij 2005. • KILAR, Vojko. Potresna obtežba, potresni spektri in poenostavljeni račun pri potresni obtežbi : študijsko gradivo za študente FA. Ljubljana: Univerza v Ljubljani, Fakulteta za arhitekturo, 2003. • SLAK, Tomaž, KILAR, Vojko. Potresno odporna gradnja in zasnova konstrukcij v arhitekturi: znanstvena monografija. Ljubljana: Univerza v Ljubljani, Fakulteta za arhitekturo, 2005. • DUHOVNIK, Janez. Statika linijskih konstrukcij I. 2. izd. Ljubljana: Univerza v Ljubljani, Fakulteta za gradbeništvo in geodezijo, 2005. • XANTHAKOS Petros P., Theory and design of bridges, John Wiley & Sons, New York, 1994. • TONIAS, Demetrios E., Bridge Engineering, 2nd. Ed., McGraw Hill, New York, 2007. • RYALL, M.J., PARKE G:A:R., HARDING, J.E., Manual of Bridge Engineering, The Institution of Civil Engineers, Tomas Telford, 2000. • SAP2000, CSI Analysis Reference Manual, ver. 10.1, Computers & Structures Inc., Berkeley, California, 2006.
<p>6. Teaching methods:</p>	<p>Combination of lectures, seminar work and individual project based work; the subject consists of several lectures and preparation of theoretical or practical application in the form of individual project.</p>
<p>7. Assessment methods:</p>	<ul style="list-style-type: none"> • each student will solve an individual project based and problem oriented task; this project will be preferably related to student's doctoral thesis; students will present and defend their project at the end of the semester, • no further subdivision of credits is envisaged, • grading scale: pos. (6–10), neg. (1–5).
<p>8. References (3-5):</p>	<ul style="list-style-type: none"> • ISAKOVIĆ, Tatjana, BEVC Lojze, FISCHINGER Matej. Modelling the cyclic flexural and shear response of the R. C. hollow box columns of an existing viaduct. Journal of earthquake engineering, sprejeto v objavo v letu 2008. • ISAKOVIĆ, Tatjana, FISCHINGER, Matej. Higher modes in simplified inelastic seismic analysis of single column bent viaducts. Earthquake eng. struct. dyn., 2006, letn. 35, št. 1, str. 95-114. • ISAKOVIĆ, Tatjana, FISCHINGER, Matej. Engineering modelling of seismically isolated viaducts. Int. j. eng. model., 2002, vol. 15, no. 1/4, str. 93-98. • SAIIDI, Mehdi, RANDALL, Matthew, MARAGAKIS, Emmanuel, ISAKOVIĆ, Tatjana. Seismic restrainer design methods for simply supported bridges. Journal of bridge engineering, 2001, vol. 6, no. 5, str. 307-315. • ISAKOVIĆ, Tatjana, FISCHINGER, Matej, FAJFAR, Peter. The seismic response of reinforced concrete single-column-bent viaducts designed according to Eurocode 8/2. European earthquake engineering, 1999, anno 13, n. 1, str. 3-1. • FISCHINGER, Matej, ISAKOVIĆ, Tatjana, KRIŽAJ, Samo. Modeling inelastic seismic response of RC viaducts. V: Earthquake engineering : eight Canadian conference : proceedings : eight Canadian conference on earthquake engineering, Vancouver, 13-16 june 1999 : huitième conférence canadienne : comptes rendus : huitième conférence canadienne sur le génie parasismique, Vancouver, 13-16 juin 1999. Vancouver: The Canadian Association for earthquake engineering, 1999, str. 689-694.

1. Course title:	Earthquake Architecture			
Course coordinator:	prof. dr. Vojko Kilar			
Lecturers:	prof. dr. Vojko Kilar			
No. of hours: 125	Lectures: 7	Seminar:	Lab. work:	Other: 118
ECTS:	5			

2. Prerequisites:	<ul style="list-style-type: none"> for the candidates enrolled in the doctoral programme 'architecture' at the Faculty of Architecture of the University of Ljubljana: approved doctoral study plan (by his mentor/mentor group and the faculty doctoral commission) for the candidates enrolled in other doctoral programmes: learning agreement based on bilateral agreement
3. Objectives of the course and intended learning outcomes (competences):	<p>Earthquake architecture gets the major inspiration source from the earthquake engineering, whereas the specific local tectonic activity becomes a generator of the architecture itself. The subject teaches the student to: recognize the possible interferences and possibilities between earthquake resistant building and modern architecture, analyze the boundaries of architectural freedom generated by earthquake safety, develop special architectural principles in relation with earthquake engineering, evaluate the earthquake architecture for existing buildings use the principles of earthquake engineering for development of new structural systems in architecture.</p>
4. Contents (Syllabus outline):	<ul style="list-style-type: none"> In the first part the students gets basic insight in the earthquake engineering field and actual philosophy of building design in earthquake prone areas. We describe the phenomena of earthquake loading as well as the importance of conceptual building design for actual behaviour of building during an earthquake. The second part is focused to architecture of earthquake resistant structures and analysis of existing or empirical mechanisms to achieve adequate horizontal stiffness of buildings. A special attention is given to the architectural identity of specific cultural region that can be accessed thru earthquake resistant building concept. The symbolic or metaphoric response of architect to earthquakes is also presented. The third part combines the first two parts and looks for a synergy between the earthquake engineering and architecture. The term earthquake architecture is defined and presented as an integral part of sustainable development strategy. As a basic tool a special evaluation methodology for identification and evaluation of earthquake architecture is presented.

<p>5. Literature:</p>	<ul style="list-style-type: none"> • Charleson, Andrew W., 2005: Structure as architecture. A source book for architects and structural engineers. Elsevier - Architectural press, Oxford, UK. • Fajfar, Peter, 1995: Osnove potresnega inženirstva – II. Izdaja. UL-FGG, Ljubljana. • Fernandez-Galiano, Luis, 2000: Earthquake and therapy. V: Lotus International, št. 104, Elmond SpA, Milano. • Garcia, Belen, 2000: Earthquake Architecture, New construction techniques for earthquake disaster prevention. Loft Publications, Barcelona. • Kilar, Vojko in Slak, Tomaž, 2005: Primerjava obnašanja regularnih in neregularnih konstrukcij pri potresni obremenitvi : raziskovalna naloga. UL - Fakulteta za arhitekturo, Ljubljana. • Lyall, Sutherland, 2002: Masters of Structure, Engineering Today's Innovative Buildings. Laurence King Publishing Ltd, London. • Slak, Tomaž in Kilar, Vojko, 2005: Potresno odporna gradnja in zasnova konstrukcij v arhitekturi. Univerza v Ljubljani, Fakulteta za arhitekturo, Ljubljana. • Slak, Tomaž in Kilar, Vojko, 2007: Potresna arhitektura in potresno inženirstvo = Earthquake architecture and earthquake engineering. AR, Arhit. razisk., Univerza v Ljubljani, Fakulteta za arhitekturo, Ljubljana. • Slak, Tomaž in Kilar, Vojko, 2007: Earthquake architecture as an expression of a stronger architectural identity in seismic areas. V: Brebbia, Carlos Alberto (ur.). Earthquake resistant engineering structures VI. Ashurst, Southampton; Boston: WIT Press.
<p>6. Teaching methods:</p>	<p>Combination of lectures (slides and case studies from Slovenia and abroad) with advanced presentation techniques for analysis (interpretation) of elements in architecture, seminar work and project oriented work; the course will be supported with prepared computer simulations of structural behaviour which enable a more direct connection with engineering component of the course; the course consists of 3 lecture segments and preparation of theoretical individual seminar work.</p>
<p>7. Assessment methods:</p>	<ul style="list-style-type: none"> • each student with a cooperation of the professor selects ones individual research theme, which is preferably related to his thesis; the student presents and defends his individual elaborate at the end of the semester, • no further subdivision of credits is envisaged, • grading scale: pos. (6–10), neg. (1–5).
<p>8. References (3-5):</p>	<ul style="list-style-type: none"> • KILAR, Vojko, SLAK, Tomaž. Vpliv zasnove konstrukcije na potresno odpornost objektov = Effect of conceptual design on the earthquake-resistance of buildings. Ujma (Ljublj.), [Št.] 16, str. 264-273, 2002. • KILAR, Vojko. Trendi razvoja in projektiranja sodobnih konstrukcij stavb = Development and project planning trends in the modern construction of buildings. V: ŠKRABA, Barbara (ur.). Simpozij Družba, prostor, graditev, Ljubljana. Ob vstopu Slovenije v Evropsko unijo. Ljubljana: Inženirska zbornica Slovenije, str. 151-157, 2004. • SLAK, Tomaž, KILAR, Vojko. Potresno odporna gradnja in zasnova konstrukcij v arhitekturi: znanstvena monografija. Ljubljana: Fakulteta za arhitekturo. 135 str, 2005. • SLAK, Tomaž, KILAR, Vojko. Earthquake architecture as an expression of a stronger architectural identity in seismic areas. V: BREBBIA, Carlos Alberto (ur.). Earthquake resistant engineering structures VI. Ashurst, Southampton; Boston: WIT Press, 2007, str. 73-82, 2007. • SLAK, Tomaž, KILAR, Vojko. Potresna arhitektura in potresno inženirstvo = Earthquake architecture and earthquake engineering. AR, Arhit. razisk. [Št.] 1, str. 47-56, 2007.