

Component (Course) code
Master course
Professor
Term – semester – Compulsory /
Optional course
Language of instruction / Other
languages for consultative teaching
Type of course unit + additional
activities
ECTS credit
Contact of Professor

Course Description

Course Objective

Course Syllabus

Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

Faculty of Architecture, University of Zagreb

Master Degree Program in Architecture and Urban Planning

Catalog of Courses for Erasmus+ and Other International Students

(courses taught in English and/or taught in Croatian with consultative teaching in English / Italian / German / French and/or Spanish)

2019

Component (Course) code
 Master course
 Professor
 Term – semester – Compulsory /
 Optional course
 Language of instruction / Other
 languages for consultative teaching
 Type of course unit + additional
 activities
 ECTS credit
 Contact of Professor

Course Description

Course Objective

Course Syllabus

Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

189725

Sustainable Building I

Održivo građenje I

Assist. Prof. Mateo Biluš

**Summer - I semester –
 Compulsory course**

Croatian / English

15 lectures/sem

1.0 ECTS

Contact:
 Assist. Prof. Mateo Biluš
mateo.bilus@arhitekt.hr
 office no.: 236 / 2nd floor

The course deals with the concept of building technology and design from the perspective of sustainability.

...
 Students are introduced to the topic of bioclimatic design, application of contemporary, ecological and traditional materials and technology, energy efficient improvements of current buildings and historical buildings refurbishment, international systems of building evaluation of buildings according to basic concepts of sustainability, advanced building installation systems and renewable energy sources.
 Course objectives are development of technical skills of conceptual design process which meet contemporary requirements of sustainable building, from basic design approach to selection of materials, construction and technical systems selection as well as optimal usage of energy sources.

Course Syllabus

- 1.Elements of sustainable building and energy features of buildings
- 2.Bioclimatic conditions of building
- 3.Logic behind the choice of materials
- 4.Sustainable building with traditional and recycled materials
- 5.Logic behind technical system design / Contemporary heating and ventilation systems
- 6.Contemporary cooling and A/C systems
- 7.Renewable energy sources and their use in technical systems
- 8.Lighting in architecture – General overview
- 9.International systems of evaluation of buildings according to basic principles of sustainability
- 10.Conversion of industrial architecture
- 11.Rehabilitation of load-bearing structures
- 12.Rehabilitation of load-bearing structures
- 13.Energy rehabilitation of buildings
14. Building rehabilitation due to moisture...

...

Other Teaching Methods and Assessment Strategies
 - Seminar paper

Compulsory Reading

- Edwards, B; Turrent, D: Sustainable Housing, Principles & Practise, E&FN Spon, London, 2000
 -Roaf, S., Ecohouse 2, A Design Guide; Architectural Press, Linacre House, Oxford, 2003
 -Gonzalo, R., Habermann, K.J.; Energy-Efficient Architecture, Basis for Planning and Construction, Birkhäuser, Munich, 2006
 -Andrew Watts: Modern Construction Handbook.; Springer, Wien/New York, 2010
 -Rowland Mainstone, Developments in Structural Form, Architectural Press; 2 edition (October 16, 2001)
 -Klostermeier, C.; Wieckhorst, T.: Umbauen, Sanieren, Restaurieren, Bauhandwerk Band 1, Bauverlag BV GmbH, Gütersloh, 2006
 -Feireiss K., Feireiss L.(2008), Architecture of Change – Sustainability and Humanity in the Built Environment, Die Gestalten Verlag
 -Cost-Effective Building, Christian Schittich (Ed.), Edition in Detail, 2009
 -Bauen im Bestand, Schäden, Massnahmen und Bauteile - Katalog für die Altbauerneuerung, Bundesarbeitskreis, Altbauerneuerung e.V. (BAKA), Institut für Bauforschung e.V. (IFB), Rudolf Müller GmbH & Co.KG, Köln, 2006

....

Additional Reading

Additional reading is determined by each mentor depending on the chosen subject

The student who successfully completes the course will be able to:

1. Promote the concept of bioclimatic approach to an architectural and urban planning project.
2. Evaluate buildings based on the sustainability concept and applied technological solution.
3. Identify advanced installation systems and renewable energy sources.
4. Interpret the principles of sustainable building in a contemporary architectural/urban design proposal.
5. Defend the significance of the sustainability concept in all elements of an architectural/urban design proposal.

Component (Course) code
 Master course
 Professor
 Term – semester – Compulsory /
 Optional course
 Language of instruction / Other
 languages for consultative teaching
 Type of course unit + additional
 activities
 ECTS credit
 Contact of Professor

Course Description

*** Course Objective

Course Syllabus

*** Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

189732

Urban Planning Workshop 1- Planning of Settlements

/
**Urbanistička radionica 1-
Planiranje naselja**

**Assoc. Prof. Sanja
Gašparović, Ph.D.**

**Croatian / English / Italian /
German / French / Spanish**

**Winter - I semester -
Compulsory course**

60 studio/sem

5.0 ECTS

Contact:
 Assoc.Prof. Sanja Gašparović,
 Ph.D.
sgasparovic@arhitekt.hr
 office no.: 424 / 4th floor

The course Urban Planning Workshop 2 aims to explore the possibilities of sustainable spatial development of a small town of 10 000 inhabitants within 10 to 15 years.

...
 The course aims to introduce the students to the methodology of drawing up urban plans (spatial planning regulation) for a smaller urban entity (1:2000). Headed by their supervisor, the students are expected to devise planning strategies and possibilities for the development of a particular area and at the same time preserve the cultural and historic heritage and natural resources.

The students draw up an urban planning proposal incorporating highly complex spatial, functional and design characteristics. They are expected to conceive and offer:

- The function and use of a particular area (town)
 - Proposal for building up an area
 - Preservation of cultural and historic assets, and natural resources
 - Public urban areas (squares, parks, promenades etc.)
- Solutions for parking facilities (parking lots, garages...)

Course Syllabus

As an open form of work and teaching, the workshop enables and encourages the student to develop critical thinking about the project, the medium they are using and the cultural situation. The mentor's task is to define the problem and its context and present it as a question which is explored by the student through the proposal of the planning design.

Elements of the assignment:

1. Analysis (of the existing situation, spatial planning documentation)
2. Evaluation of construction and landscape features (natural values, built heritage, tourism and development possibilities)
3. Problem chart
4. Planning programme □ numerical indicators
5. Concept proposal (spatial development of the settlement or part of the settlement with basic spatial and functional solutions, conditions and designs of individual spatial units)
6. Concept development (spatial organisation scheme □ The use of space, circulation system, proposal of the structure of construction)
7. Urban planning design – A detailed use of surfaces, 1:2,000 (urban development plan level)
8. Urban planning structure and composition – Building method, public space design, visual dominants in the space (floor plan □ working model), scale 1:2,000 (urban development plan level)
9. Textual description of the plan
10. Space rendering (3D simulations or a photograph of the model)

...

Other Teaching Methods and Assessment Strategies

During the term, students submit graphic contributions on two occasions when set assignments will be checked. They prepare a seminar paper on a set topic related to the main assignment of the workshop. Regular attendance. A passing grade for the project and a presentation and explanation of the project.

Compulsory Reading

1. Marinović-Uzelac, A. (2001): Prostorno planiranje, Dom i svijet, Zagreb, ISBN 410511020
2. Pegan, S (2010): Prostorno planiranje - zaštita prirode i okoliša - compendium predavanja, SZAF
3. Physical planning journals and magazines

Additional Reading

- Echenique, M & Saint, A. (2001) Cities for the New Millennium, London: Spon Press, ISBN 0-415-23183-3
- Graaflan, A. (ed.) (2001) Cities in transition, Rotterdam: 010 Publishers, ISBN 90-6450-415-6
- Jenks, M. & Burton, E., Williams, K. (1996) The Compact City, a Sustainable Urban Form?, Oxford: Spon Press, ISBN 0-419-21300-7
- Koolhaas, Rem (2001) Project on the city 2, Köln: Taschen GmbH, ISBN 3-8228-6047-6
- Short, J. R. (2001) The urban order, Oxford: Blackwell Publishers Ltd, ISBN 1-55786-361-x
- **** Zakon o prostornom uređenju i gradnji (Official Gazette 76/2007)
- **** Physical planning journals and magazines
- *** MPUGS (1999): Program prostornog uređenja Republike Hrvatske, Zagreb, ISBN 953-97403-1-2
- *** SPURH (2011): Smjernice i kriteriji za arhitektonsku vrsnoću građenja, MZOPUG Zagreb,
- ** Prostor, Znanstveni časopis za urbanizam, prostorno planiranje i pejzažnu arhitekturu, SZ, AF

The student will be able to:

- Single out the features of a wider spatial context relevant for establishing the relationship with the scope of the relevant plan.
- Assess the factors of spatial identity.
- Explain the starting points of planning based on set limitations and possibilities.
- Create a complete and rationalised design on the level of urban development plan.

Component (Course) code
 Master course
 Professor
 Term – semester – Compulsory /
 Optional course
 Language of instruction / Other
 languages for consultative teaching
 Type of course unit + additional
 activities
 ECTS credit
 Contact of Professor

Course Description

*** Course Objective

Course Syllabus

*** Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

189728

**Architectural Design
 Workshop I - Housing + /
 Radionica arhitektonskog
 projektiranja I – Stanovanje +**

Assoc. Prof. Branimir Rajčić

**Winter - I semester –
 Compulsory course**

Croatian / English

120 studio/sem

11.0 ECTS

Contact:

Assoc. Prof. Branimir Rajčić
branimir.rajcic@arhitekt.hr
 office no.: 3/-I floor

The course focuses on a design project development examining new typology, complex large-scale programs and architectural principles of free topics. Design interior studio is an integral part of the workshop.

Architectural workshop is a form of research carried out through a design project which integrates knowledge and skills acquired in the previous years. The assignments set by a supervisor deal with complex architectural programs in a contemporary context encompassing issues relevant to the profession and space development as well as technical and technological innovations

...

The workshop stimulates the development of critical thinking towards the program, medium used and culture. The supervisor's role is to define the issue and place it into the context of architectural project research. Professional and cultural context of the assignment as well as the suggested readings are included in the reader which introduces students to project work.

Visiting lecturers from the Faculty of Architecture and elsewhere broaden students' knowledge about the context of architecture and analogies with other disciplines as well as about multi-faceted aspects of the contemporary moment. Participation of experts in the fields of the built heritage, theory and history of art and architecture, structural systems, technical installations and architectural structures provides a sound basis for coping with these issues.

Project presentation and an exhibition are integral parts of the workshop. Students give presentations during the semester and at the end of it. They are expected to develop an ability to deal with complex architectural issues and critically evaluate new ones using the latest techniques, materials and structures.

Architectural Design Workshop I is based on investigational approach to housing. The workshop includes specific seminar papers, presentations and discussions during the term, as well as a final presentation of the project.

- 1 Introductory research – Defining the assignment,
- 2 Presentation of concepts,
- 3 Conceptual / Schematic design
- 4 Exhibition and presentation of students' submissions
5. Exhibition of selected submissions and presentation of the "Zdenko Stržić" award.

Course Requirements:

Regular attendance, prepared and presented project

Assessment Strategy :

Students' knowledge is assessed through successfully completed project assignments

Compulsory Reading

...

Additional Reading

The student will be able to:

- Independently design a complex architectural and urban planning schematic design of a hybrid complex predominantly for housing use.
- Create a technical and technological design of an architectural building according to the spatial and functional concept.
- Integrate acquired theoretical knowledge with creative decisions.
- Relate the thematic framework research process to the design process.
- Categorise the relationship between the architectural building, the surroundings and the social relationships.
- Develop the ability to make argued decisions related to the design process.
- Explain the architectural project, in writing and orally, using conceptual, professional and technical representations.

Component (Course) code
 Master course
 Professor
 Term – semester – Compulsory /
 Optional course
 Language of instruction / Other
 languages for consultative teaching
 Type of course unit + additional
 activities
 ECTS credit
 Contact of Professor

Course Description

*** Course Objective

Course Syllabus

*** Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

189728

Modern Housing

/
Suvremeno stanovanje

Prof. Alenka Delić, Ph.D.

Winter - I semester –
Compulsory course

Croatian / English

15 lectures/sem

1.0 ECTS

Contact:

Prof. Alenka Delić, Ph.D.
alenka.delic@arhitekt.hr
 office no.: 325 / 3rd floor

Living accommodation is one of the most significant aspects in the development of town life. Through the theoretical part of the course and the workshop on modern dwellings, the course explores new (experimental) spatial systems in line with the changing needs, wishes and aspirations of residents, usage multifunctionality, the individualization of apartment block accommodation, participation, implementation of ICT, modern design with use of most modern technologies available, 'intelligent' environments and residential spaces alongside the strategy of sustainable development and an ecological approach.

Course Syllabus

- 1– Course introduction
- 2– Modern Movement in Croatia and Europe
- 3 – World urbanisation □ New visions
- 4– Family transformation
- 5– How to write a seminar paper – Guest lecturer
- 6 - Croatia – Zagreb □ urbanisation
- 7 -Croatia – Zagreb □ population – social structure
- 8 – Intelligent and sustainable housing
- 9– Number of floors and density
- 10– New directions in multi-family housing typology
- 11 - Globalisation, individualisation and ICT
- 12– Housing for various social groups
- 13 - Variability/flexibility in multi-family housing units
- 14 -Flexibility/variability/adaptability in the organisation of flats
- 15 – Housing surroundings

Other Teaching Methods and Assessment Strategies

Regular attendance of lectures and keeping up to date with course reading, active participation in discussions.

Compulsory Reading

1. Bruno Zevi: Znati gledati arhitekturu - ogled o interpretaciji prostora u arhitekturi Lukom d.o.o., 2000
2. Migayrou F., Brayer M. - ArchiLab –Radical Experiments in Global Architecture Thames&Hudson, London, 2001
3. Gausa M. – Housing: New Alternatives - New Systems Birkhauser Publishers, Basel, Boston, Berlin, Actar, Barcelona, 1998
4. Radermacher F. J.: Ravnoteža ili razaranje, Eko-socijalno-tržišno gospodarstvo kao ključ svjetskog održivog razvoja Intercon – Nakladni zavod Globus, Zagreb 2003

The student who successfully completes this course will be able to do the following independently:

DEFINE the problems of the construction of multi-family housing units and social structure of the society.

INTERPRET the quality of a design proposal for a multi-family housing unit construction and housing policies.

APPLY the knowledge of multi-family housing unit construction by applying contemporary technical and technological solutions to the research of new housing typologies.

EVALUATE the strategies for building new housing resources and reconstructing the existing ones.

DRAFT good-quality and innovative design proposals for various housing needs in accordance with socio-economic changes and adopt a strategy of sustainable development and an ecological approach.

Component (Course) code
 Master course
 Professor
 Term – semester – Compulsory /
 Optional course
 Language of instruction / Other
 languages for consultative teaching
 Type of course unit + additional
 activities
 ECTS credit
 Contact of Professor

Course Description

*** Course Objective

Course Syllabus

*** Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

189731

Physical Planning

/

Prostorno planiranje

Prof. Srećko Pegan, Ph.D.

Summer - I semester –
Compulsory course

Croatian / English

15 lectures/sem

1.0 ECTS

Contact:

Prof. Srećko Pegan, Ph.D
srecko.pegan@arhitekt.hr
 office no.: 431 / 4th floor

The course topics cover the general and specific knowledge of physical planning. The lectures will lead to understanding the processes that take place in a region. Urbanization. Basic elements involving in generating contemporary space structure. Traffic and the region. Industry and the region. Tourism. Typology of contemporary tourism zones. Agricultural and forest land. Landscape – basic terms and definition. Identity of space and the danger of its loss in the process of transformation and globalization. Basic principals of protection. Regions of specific characteristics – natural parks, natural reserves, national parks. Detailed methodology in preparing, ruling and application of physical plans

...
 The course is upgrade to the course “Introduction to Physical Planning”. The purpose of a course is to give detailed knowledge of physical planning in relation with contemporary generators of space consumers.

Definition of urban planning, and Physical and management Act.
 Functional characteristic and basic processes in the region.
 Basic elements involving in generating contemporary space structure.
 Urbanization.
 Traffic and its importance for the region.
 Traffic conditions of town locations and development.
 Commercial zones and industry zones in a region.
 Development of tourist zones and their typology.
 Agricultural and forest land
 Landscape – basic terms and definition. Landscape and its identity.
 Identity of space and the danger of its loss in the process of transformation and globalization.
 Natural environment endangerness, and space protection.
 Historic overview of Natural heritage protection in Croatia.
 Regions of specific characteristics - National parks, Natural reserves and Natural parks.
 Methodology of preparing physical plans.
 Practical problems in preparing, ruling and application of physical plans.

1. Space management
2. “Europe in the World” – Territorial Evidence and Visions
3. “Scenarios on the Territorial Future of Europe” – ESPON research
4. Physical planning and spatial economics
5. Demographic indicators in physical planning
6. Regionalisation
7. Urbanisation and regionalisation
8. Urban concentrations
9. Traffic and infrastructure systems
10. Theory and methods of physical planning
11. Design in physical planning
12. Physical planning in the Republic of Croatia
13. Physical Planning Strategy and Programme of the Republic of Croatia
14. County physical plans
15. Physical planning terms, criteria and standards

Other Teaching Methods and Assessment Strategies

- Written exam

- Oral exam

Compulsory Reading

Marinović-Uzelac, A.: Prostorno planiranje, Dom i svijet, Zagreb, 2001., ISBN 410511020 Pegan, S.: Prostorno planiranje, compendium predavanja, AF, 2012

Additional Reading

Birch L. E. (Ed.) The Urban and Regional Planning (Reader), Routledge; London, New York, 2009.; ISBN– 10: 0-415-31997-8 Campbell, S. & alt.: Readings in Planning Theory, Blackwell Publ.; USA, “2nd ed., 2003., ISBN 0-631-2347-9 Evans, a. W.: Economics&Land Use Planning, Blackwell Pub., 2004, ISBN 1-4051-1861-X Hall, P. Urban and regional planning, 2002, ISBN 415-21776-6 Krugman, P., et al.: The Spatial Economy - Cities, Regions and International Trade; MIT Press, 1999, isbn 0262062046 Kunzmann, K.R. : Reflexionen uber die Zukunft des Raumes, IRPUD, Dortmund 2006, ISBN 3-88211-138-0 Langenhagen, C.-R.: Raumordnung und Raumplanung, WBG, Darmstadt, 2005, ISBN 3-534-18792-X Maier, G. et al.: Regional- und Stadtekonmik 1, Standorttheorie und Raumstruktur, Springer Verl., Wien, ISBN 3-211-27954-7 Maier, G., et al.: Regional- und Stadtekonmik 2, Regionalentwicklung und Regionalpolitik, Springer Verl., Wien, ISBN 3-211-27955-3 McLoughlin, J.B. Urban and Regional Planning: A Systems Approach, Faber & Faber London, 1969. MVRDV: The Regionmaker RheinRuhrCity, ISBN 3-7757-1200-3 Plane, D. A. : Regional Planning, E.E. Publ. inc., Northampton, USA, 2007, ISBN -13: 978184542 0277 Pogačnik, A. Kako izdelamo prostorske načrte, Maribor, 2004., ISBN 961-230-288-X Prosen, A. (Ed.): Prostorne znanosti za 21. stoletje, Jubilejni zbornik, Ljubljana, 2004, ISBN 961-6167-71-5 RH, Savjet PURH: Izvješće o radu 2004.-2007., Zagreb, 2007, ISBN 78-953-6739-47-1 Šimunović, Ivo : Urbana ekonomika, Školska knjiga, Zagreb, 2007, ISBN 978-953-0-30341-6 Šimunović, Ivo.: Grad u regiji ili regionalni grad, Logos, Split, 1996, ISBN 953-6099-25-X Stimson, R et al.: Regional Economic Development: Analysis and Planning Strategy, Springer Verl.; 2006, ISBN-10 3-540-34826-3 Thornley, A. & Rydin, Y.: Planning in a Global Era, Ashgate Publ. Ltd., USA, 2002, ISBN 0 7546 1943 5 Vresk, M.: Grad i urbanizacija, Školska knjiga d.d., Zagreb, 2009, ISBN: 9530308655 Vrsek, M.: Osnove urbane geografije, Školska knjiga, Zagreb, 1977- Webster, C., et al.: Property Rights, Planning and Markets,

The student who successfully completes the course will be able to:

1. Identify social, economic, ethical and other starting points in physical planning.
2. Promote the significance of physical planning.
3. Demonstrate the criteria and procedures for development and protection of space.
4. Differentiate elements, divisions and organisation of planned space.
5. Draw instruments for physical planning implementation.
6. Provide examples necessary for contemporary understanding of physical planning processes.
7. Compare the physical planning design proposal with well-known examples.

Component (Course) code
Master course
Professor
Term – semester – Compulsory /
Optional course
Language of instruction / Other
languages for consultative teaching
Type of course unit + additional
activities
ECTS credit
Contact of Professor

Course Description

Course Objective

Course Syllabus

Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

Managing Spontaneous Cities, E.E.Publ.Inc., 2003, ISBN 1-84064-904-6 *** Uberortliche Raumplanung (Teil 1) – www.ifoer.tuwien.at*** MZOPUG : Smjernice i kriteriji za planiranje golfskih igrališta, Zagreb, 2010 *** MZOPUG : Smjernice i kriteriji za arhitektonsku vrsnoću građenja, Zagreb, 2011 Prostorno planiranje u Europi ** EUREK, Europäisches Raumentwicklungskonzept, Auf dem Wege raumlich ausgewogenen und nachhaltigen Entwicklung der Europäischen Union, EU Kommission, 1999, <http://europa.eu.int.comm/regional/policy/sources>
Adams,N. et al.: Regional Development and Spatial Planning in a Enlarged European Union, England, Ashgate Pub.Ltd., 2006., ISBN -10: 0 7546 4714 5
Altrock, U., et al.: Spatial Planning and Urban Development in the New EU Memeber States, From Adjustmnet to Reinvention, Ashgate Publ. Ltd., 2006, ISBN 0 7546 4684 X
Faludi, A.,(ed.) : European Spatial Planning, Lincoln Institute of Land Policy, Cambridge Massachusetts. (2002), Larsson, G.: Spatial planning Systems in Western Europe, IOS Press, 2006, iISBN 1-58603-656-4

Component (Course) code
 Master course
 Professor
 Term – semester – Compulsory /
 Optional course
 Language of instruction / Other
 languages for consultative teaching
 Type of course unit + additional
 activities
 ECTS credit
 Contact of Professor

Course Description

*** Course Objective

Course Syllabus

*** Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

189726

Sustainable Building II / Održivo građenje II

Assoc. Prof. Zoran Veršić,
Ph.D.

Winter - II semester –
Compulsory course

Croatian / English

15 lectures/sem

1.0 ECTS

Contact:

Assoc. Prof. Zoran Veršić, Ph.D
zoran.versic@arhitekt.hr
 office no.: 236 / 2nd floor

Protection of building users, buildings and environment based on studying building physical features in terms of noise and fire.

During its life expectancy every building should fulfill building requirements and other conditions to ensure that they meet all building standards and proscribed laws and regulations. Buildings should be usable during certain lifetime.

Building requirements are present in the process of planning, designing and building.

Noise and fire protection are two requirements which every building should ensure. These requirements should be respected at building site selection, building design and building dimensioning and its parts, as well as at construction. This can be achieved by using specific structures and materials with specific characteristics.

...
Building and equipment of building are in certain danger from the external influence. At the same time, its content and usage could present the endangering element to surroundings. It is planned to acquire knowledge and adopt methods for defining optimal architectural systems, materials and structures for protecting building users, buildings and environment.

Accordingly, from the first design phase and design process, architectural solutions of elements and applied systems have to be integrated to meet all the building requirements (noise and fire protection).

1.Physical properties of noise, psychological and physical meaning of noise

2.Noise (types of noise, noise impact on people)

3.Noise as the source of environmental pollution (noise protection design concept, traffic noise protection)

4.Legal regulations on noise protection and noise and sound insulation measurement

5.Requirements for building noise protection (as part of an urban planning and architectural design)

6.Requirements for building noise protection (outdoor noise protection, air and impact sound protection within a building, protection from the noise of equipment installed in the building, environmental protection from noise coming from building- related sources of noise, high reverberation noise protection)

7.Spatial acoustics and high reverberation noise

8.Materials for noise protection, examples

9.Burning and fire-extinguishing processes

10.Fire protection laws and requirements

11.Fire protection measures

12.Fire compartmentalisation of buildings

13.Evacuation routes

14.Fire protection materials

15.Fire protection design, examples

...

Course Requirements

Regular attendance, seminar paper

Assessment Strategy

Written and oral exam

Compulsory Reading

1. Tehnička enciklopedija, I.svezak - Akustika, IV. svezak - Elektroakustika, Hrvatski leksikografski zavod, Zagreb

2. W.Fasold, E. Veres, Schallschutz+Raumakustik in der Praxis, Verlag für Bauwesen, 1998

3. M.Carević et al.: Tehnički priručnik za zaštitu od požara, Zagrebinspekt, Zagreb, 2002

Additional Reading

1. Fischer, Lehrbuch der Bauphysik, Schall, Wärme, Feuchte, Licht, Brand,, Klima, B.G. Taubner, Stuttgart, 1997

2. Zakon o zaštiti od buke (Official Gazette 20/03),
3. Pravilnik o najvišim dopuštenim razinama buke u sredini u kojoj ljudi rade i borave (Official Gazette 145/04)

4. Pravilnik o načinu izrade i sadržaju karata buke i akcijskih planova (Official Gazette 05/07)

5. Zakon o zaštiti od požara (Official Gazette 58-93, 33-05)

6. TRVB - Austrijske smjernice za zaštitu od požara

7. NFPA 101 - Life Safety Code

Course Learning Outcomes

The student who successfully completes the course will be able to:

1. Differentiate legal regulations on noise and fire protection.

2. Evaluate buildings according to technological solutions for noise and fire protection.

3. Recommend the use of materials for noise and fire protection.

4. Identify the principles of spatial acoustics control.

5. Suggest architectural and urban planning designs which provide noise and fire protection.

6. Promote the importance of protecting a space from noise pollution.

Component (Course) code
 Master course
 Professor
 Term – semester – Compulsory /
 Optional course
 Language of instruction / Other
 languages for consultative teaching
 Type of course unit + additional
 activities
 ECTS credit
 Contact of Professor

Course Description

*** Course Objective

Course Syllabus

*** Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

189735

Architecture in Croatian Regions – Dalmatia

/
 Hrvatski prostor i arhitektura - Dalmacija

Assoc. Prof. Tin Sven Franić

Summer - II semester –
 Compulsory course

Croatian / English

48 seminar/sem
 Field Course – 5 day trip

2.0 ECTS

Contact:

Assoc. Prof. Tin Sven Franić
tin-sven.franic@arhitekt.hr
 office no.: 409 / 4th floor

The site-specific course Croatian space and architecture - Dalmatia, offers general view into the Dalmatian architectural and urban heritage. The basic division of architectural discipline into urbanism, historical and contemporary architecture and architectural design, is used as a framework of the course's curriculum, which addresses natural resources, city's structures, architecture in urban or natural contexts, architecture for tourism and the architectural works by themselves. Itinerary of the tour is drafted in a way to emphasize the specific values of each of the site's characteristics -- in a range from cultural and historical specificities, terrain configurations, morphologies of the city's structures, to the distinctiveness of architects' works and current architectonic and social issues -- in a sense of clarifying the origin of each or the architectural work and its valorization. During the four full days tour of the Dalmatian area from Nin to Dubrovnik, the course's itinerary is held according to the program. Site visitations and presentations along with the thematic lectures will take place in situ.

...
 The course's main objective is acquaintance with the visited sites and familiarization with the Dalmatia's overall urban and architectural heritage, and together with that cultivation of critical stance towards the current issues of the discipline of architecture. The site-specific course, as an educational method, offers a way of immediate observation of cities and buildings in their actual environment. The guidance, with its program, evaluation and selection criteria of the chosen samples and in situ exposés, attempts to inform the students with specificities of this kind of immediate communication in the discipline of architecture. This site-specific course which is also an educational method is based not only upon the creative origins of the prominent twentieth century architects but also upon their architectural precedents.

Itinerary: Nin, Zadar, Šibenik, Trogir, Split, Brela, Makarska, Vidušica, Naron, Ston, Trsteno, Dubrovnik. The course includes both the tutors of the Faculty of Architecture and appropriate experts in other disciplines as well as architects whose quality of work has made a special mark on the region of Dalmatia. During the visit, students will graphically record, photograph and analyse the cities and buildings visited. After the trip, they should choose a series of relevant examples from their diaries and reproduce them in an originally designed booklet along with accompanying expert commentary. The booklet should then be submitted as a seminar paper – Fieldwork Diary. (Depending on the possibilities of the Faculty, the syllabus may be extended to the area from Pag to Cavtat, the islands, and Dalmatian hinterland; also, a study trip to Vienna may be organised for students in the winter term of the graduate programme).

NOTE:

This is field course along Dalmatian coast (from Zadar to Dubrovnik), planned as 5-day trip in the April. For the trip, accommodation in hotels and full board students participate with cca 1000 HRK. By selection of this course in Learning Agreement, student is willing to take part at the course and trip and pay participation of cca 1000HRK upon arrival at the Faculty.

...

Course Requirements
 Field course active attendance.

Assessment Strategy
 Seminar paper – Fieldwork Diary

Compulsory Reading

1. Uchytíl, A., Barišić Marenčić, Z. (ed.) (2000), Dnevnik terenske nastave – Dalmacija (guidebook for students), Arhitektonski fakultet Sveučilišta u Zagrebu, Zagreb (Authors: A. Uchytíl, T. Žarnić, Z. Barišić, M. Kovačević, A. Kuzmanić, A. Vulin, N. Kozulić)
2. Uchytíl, A., Žarnić, T., Karač, Z., Barišić, Z. (1998), Elementarni arhitektonski vodič – Dalmacija, Arhitektonski fakultet Sveučilišta u Zagrebu, Zagreb
- 3.***(1998-2010), Hrvatski prostor i arhitektura – Dalmacija - separati terenske nastave Dalmacija, Uchytíl, A., Arhitektonski fakultet Sveučilišta u Zagrebu, Zagreb
4. Separati terenske nastave-Dalmacije

Additional Reading

1. HPA-Dalmacija, repozitorij-biblioteka

On successful completion of the course, the student will be able to:

1. Identify the most important historical and modern architectural achievements in the Dalmatian region.
2. Understand the origins of the creation of historical and contemporary architectural achievements visited.
3. Present basic spatial characteristics of historical and contemporary architectural achievements visited.
4. Draw basic spatial features of the architectural achievements visited.
5. Promote the architect's responsibility towards the preservation of the value of natural and built environment.

Component (Course) code
 Master course
 Professor
 Term – semester – Compulsory /
 Optional course
 Language of instruction / Other
 languages for consultative teaching
 Type of course unit + additional
 activities
 ECTS credit
 Contact of Professor

Course Description

*** Course Objective

Course Syllabus

*** Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

189733

Urban Transformations
 /
Urbane preobrazbe

Prof. Tihomir Jukić, Ph.D.

**Summer - II semester –
 Compulsory course**

Croatian / English

15 lectures/sem

1.0 ECTS

Contact:

Prof. Tihomir Jukić, Ph.D.
tihomir.jukic@arhitekt.hr
 office no.: 402 / 4th floor

Introduction to city development and urban planning concepts in the world and in Croatia in the 20th century. The course content is presented chronologically. The students are introduced to urban transformations as well as to the impact of social, economic and political changes on urban fabric transformation. It also provides insight into special aspects of transformation.

...
 The aim of this course is to introduce students to the processes of continuous urban transformation as well as the contemporary urban transformation in Croatia and worldwide. Students are taught to recognize and develop critical thinking about urban planning concepts and their impact on the recent events at home and worldwide.

1. Development of urban space concept (20th century)
 2. 19th/20th century: types of cities: linear, garden, industrial, new block (New Amsterdam)
 3. Urban transformation between the two World Wars in Croatia and worldwide
 4. Werkbund, Bauhaus, CIAM
 5. 20th century functionalism and a trend for a modern city
 6. City and totalitarian regimes (fascism)
 7. Concepts of urban fabric after World War II
 8. Development of the cities after World War II in Croatia
 9. New City of the 20th century (English and Scandinavian new cities, Brasilia, Chandigarh, Canberra...)
 10. Urban utopias of the 20th century
 11. Typological and morphological elements of urban transformations in the 1970s and 1980s
 12. Contemporary urbanism in the world
 13. Contemporary urbanism in Croatia
 14. Socio-economic and socio-political aspects of city transformation in the early 21st century
 15. discussion on contemporary city planning theories and urban transformations (hybrid city, cinematic city, virtual city, , network city, cyborg city, buzz city, intransitive city, informational city, creative city, - seminar
- preliminary exam
 - seminar paper (min. 7 pages) on the topic of urban transformations

...

Other Teaching Methods and Assessment Strategies

- Mid-term exam

- Seminar paper (seven standard pages min.) on urban transformations

Other Teaching Methods and Assessment Strategies

- Mid-term exam

- Seminar paper

Compulsory Reading

1. Graafland, A. (2001) Cities in transition, Rotterdam
2. Frampton, K. (1992) Moderna arhitektura - Kriička povijest, Globus nakladni zavod, Zagreb, ISBN 86-343-0647-X
3. Deakin, M.; Mitchell, G.; Nijkamp, P.; Vreeker, R. (2007) Sustainable Urban Development, London ISBN 978-0-415-3221
4. Zevi, B. (2006), Povijest moderne arhitekture, Arhitektonski fakultet, Golden marketing, Zagreb
5. Ellin, N. (1999)– Postmodern urbanism, Princeton architectural press, New York,
6. Andrusz, G; Harloe, M.; Szelenyi, I. (1996) Cities after socialism – Urban and regional changes and conflict in post- socialist societies, Blackwell Publishers Inc Oxford, UK
7. Low, S.M.(2006) Promišljanje grada, Jesenski i Turk, Zagreb, ISBN 953-222-205-7

Additional Reading

1. Jukić, T. (1997) Strukturalne promjene rubnih dijelova grada-prilog proučavanju urbanističkog razvoja, disertacija
2. Ellin, N. (2006) Integral urbanism, Routledge, New York
3. Colquhoun, I. (1995) Urban Regeneration, B.T. Batsford, Ltd-London, ISBN 0 7134 7087 9
4. -----, (2000) Wien, Stadterhaltung, Stadterneuerung; Stadtplanung Wien,
5. -----, The transformation on the city space on the background of political-economic changes in central Europe
 - Examples of contemporary urban transformations from recent examples of modern urban transformations from recent trade journals
6. Castex, J; Depaule, J.C.; Panerai, P. (2003), Urbane forme, Građevinska knjiga, Beograd
7. Hubbard, P. (2006) City, Routledge, London, ISBN 978-0-415-33100-5.

On completion of this course, the student will be able to:

1. Provide examples of development of urban space of cities important for contemporary understanding of urban transformations.
2. Analyse urban planning tendencies in Croatia and abroad.
3. Interpret typological and morphological elements of urban space transformation.
4. Interpret the acquired knowledge during preparation of urban development design.
5. Compare the urban development design with well-known examples.

Component (Course) code
 Master course
 Professor
 Term – semester – Compulsory /
 Optional course
 Language of instruction / Other
 languages for consultative teaching
 Type of course unit + additional
 activities
 ECTS credit
 Contact of Professor

Course Description

*** Course Objective

Course Syllabus

*** Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

189734

Urban Planning Workshop - Transformation of the City / Urbanistička radionica - Preobrazba grada

Prof. Tihomir Jukić, Ph.D.

Summer - II semester – Compulsory course

Croatian / English / Italian / German / French / Spanish

60 studio/sem

5.0 ECTS

Contact:
 Prof. Tihomir Jukić, Ph.D.
tihomir.jukic@arhitekt.hr
 office no.: 402 / 4th floor

The course is focused on a systematic and comprehensive planning of complex residential and business city areas and their integration into the existing planned urban fabric.

Emphasis is placed on planning public social, commercial and office buildings along with residential housing as the main component of a city. Special emphasis is put on planning new public areas (street, square, parks...). Residential and office buildings are planned on the level of a detailed development plan in the selected unregulated city areas which require intervention in the form of redevelopment, addition or new construction. Planning residential and business urban areas should be coordinated with the use and preservation of the existing values and sustainable construction.

 The course aims to teach students how to analyze, conceive and work out a high-quality solution for a residential and business city area which should structurally, functionally and programmatically fit into the existing urban fabric.

The course offers an overview of urban planning as a complex interdisciplinary process. It gives knowledge about function and design of particular city areas, urban space management as well as planning procedures and strategies of controlled development. Emphasis is placed on residential and business urban areas and their relationship with other urban areas and their functions. The course develops skills needed for the comprehension of a large scale as a framework for assessment, comparison and planning of residential and business urban areas and their relationship with the city as a whole.

As an interactive teaching form, the workshop enables and encourages students to individually explore and develop the methods for analysis, preparation and presentation of an urban area development plan. The mentor's task is to define and explain the assignment and direct and guide students through the process of preparation of an urban area development plan. Elements of the assignment:

1. Analysis and presentation of the existing state (scale 1:5,000) and planning documentation
2. Analysis and presentation of reference examples
3. Problem chart □ Limitations and possibilities of space utilisation development (scale 1:5,000)
4. Planning programme with the calculation and identification of urban planning indicators
5. Concept proposal □ Spatial organisation scheme (scale 1:5,000)
6. Concept development and presentation □ Planned spatial structure
7. Development of the concept and design of a broader zone □ A detailed intended use of the space and structure proposal (scale 1:5,000)
8. Urban design □ The level of detailed development plan of an urban area (scale 1:1,000)
9. Detailed urban design □ Site plan with the rendering of the fifth façade, characteristic sections and elevations (scale 1:1,000)
10. Detailed urban design □ Site plan with ground-level floor plans
11. Floor plans of all characteristic below-ground and above-ground storeys as well as sections of buildings within a narrow zone (scale 1:1,000)
12. Written explanation of the plan and identification of urban planning indicators
13. Details of urban space development
14. Space rendering
15. Exhibition staging and successful presentation and argumentation of the project assignment

Other Teaching Methods and Assessment Strategies

-During the term, students prepare written and graphic submissions and briefly present analyses and phase-by-phase designs to other students and experts. They exhibit the final result of their work at the final exhibition and publicly present and explain the project. Their project is also published in a publication.

Compulsory Reading

Suggested compulsory and additional reading for the following courses of the Department for Urban Planning, Physical Planning and Landscape Architecture:

Urban Transformations, Urban Planning I, Urban Planning II, Urban Planning III, Landscape Architecture, Public Urban Space Development, Utility Development in Settlements, Urban Transportation Design Issues, History of European Urban Planning, Physical Planning, and others.

Additional Reading

- 1.*** Recent examples from magazines for architecture and urban planning (programme archive)
- 3.*** Urban planning regulation
- 4.*** (2001-2006), Prostorni plan grada Zagreba, Official Gazzette of the City of Zagreb 8/2001, 16/2002, 11/2003 and 2/2006, Zagreb
- 5.*** (2007-2008), Generalni urbanistički plan grada Zagreba, Official Gazzette of the City of Zagreb 16/2007, 2/2008 and 6/2008, Zagreb
6. Adopted reference development plans and detailed plans for development (Decisions on adoption published in the Official Gazzette of the City of Zagreb) and publications of reference urban planning and architectural competitions.

On successful completion of the course, the student will be able to:

1. Develop the programme of an architectural and urban planning project of a mixed residential/commercial part of the city.
2. Interpret the city as a complex whole with carefully planned amenities and programme.
3. Interpret the knowledge of urban space management and planning procedures and controlled development measures.
4. Compare mixed residential/commercial parts of the city according to a group of adopted criteria.
5. Prepare a preliminary study of the urban transformation of a part of the city.

Component (Course) code
 Master course
 Professor
 Term – semester – Compulsory /
 Optional course
 Language of instruction / Other
 languages for consultative teaching
 Type of course unit + additional
 activities
 ECTS credit
 Contact of Professor

Course Description

*** Course Objective

Course Syllabus

*** Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

189730

**Architectural Design
 Workshop 2 – Sport+
 /
 Radionica arhitektonskog
 projektiranja 2 - Sport +**

Prof. Tonči Žarnić

**Summer - II semester –
 Compulsory course**

Croatian / English

120 studio/sem

11.0 ECTS

Contact:
 Prof. Tonči Žarnić
tonci.zarnic@arhitekt.hr
 office no.: 517 / 5th floor

Architectural workshop 2 'sport+' is a form of research through design which explores more complex architectural programs in the contemporary context, emerging occurrences in society, discipline and space, technical and technological discoveries. It consolidates knowledge attained in previous years of study, and visiting lecturers contribute to the broadening of knowledge of the context within which architecture emerges, the analogies with other disciplines, and the multifaceted aspects of contemporariness. Research is focused toward the growth of a new model of sport facilities with added programs which enable a broader social impact. The given sport-oriented content is transformed through both the project and the added program into a new type of social centre. This program +, which the student defines individually, has to be a result of completed research of various contexts within the assignment. The subject frame includes unencumbered space, construction rhetoric, the relation of served and serving space, sustainable building, spatial vs. material organization, cross/trans/disprogramming and other themes upon which a certain assignment relies. The assignments are carried out in bi-semesteral cycles. The projects explore how the language of architecture articulates and describes specific function/s, spatial character and the choreography of usage, the public appearance of a building, the aspect of sustainability, continuous uptime in the social sense, adaptability etc. ... The workshop as an open form of work and teaching enables and encourages the student to develop a critical regard toward the program, the implemented medium and culturological situation. The mentor defines the problem and its context and presents it to the student as a question which he then researches through an architectural project. The student comes to an understanding of complex parameters, spanning from conceptual to technical ones, from which architecture emerges and, along with the project, develops an understanding for the argumentation of ones decisions. Ability to solve more complex architectural problems and to critically engage in new occurrences is also developed while using the newest technical tools, materials and construction.

Architectural Workshop II is based on intensive studying of a design problem and investigative approach to architectural design. The workshop includes targeted seminar papers, joint presentations and discussions during the term. It also includes a final presentation and project presentation.

It is conducted following the steps below:

1. Thematic context study □ seminar paper
2. Preliminary study

Additional programme definition Site analysis

Site plan study using real models

Representation of architectural type, materialisation and spatial

organisation forms Use scenario

Space rendering

Other contributions which explain the concept Concept presentation

3. Schematic design

Site plan (broad context), scale 1:2,000 Site plan, scale 1:1,000

Floor plans, sections, fronts, scale 1:200 Characteristic section, scale

1:100 Characteristic details, scale 1:20 Structure scheme, scale 1:500

Model of the structure, scale 1:200, or a specific element in an

appropriate scale Space rendering of the structure and its surroundings

and interior

Technical description

4. Exhibition and presentation of works

Other Teaching Methods and Assessment Strategies:

- Project assignments, seminar papers, presentations, successful project presentation and argumentation

Compulsory Reading
 Reader (compilation) contains excerpts from compulsory reading and references additional reading. It changes according to the thematic framework of the project assignment.

Additional Reading

Current trade journals and monographs

1. Students will be able to independently produce a highly complex preliminary architectural and urban planning design.
2. Students will be able to creatively develop a technical and technological design of an architectural structure in relation to the spatial and functional concept.
3. Students will be able to creatively connect the process of researching a thematic framework of an architectural problem with design decisions.
4. Students will be able to modify the heritage of functional typologies according to contemporary requirements.
5. Students will be able to interpret theoretical concepts through their design decisions.
6. Students will be able to critically assess the relationship between an architectural structure and the urban or natural surroundings, as well as its social influence.
7. Students will be able to develop a programme for a social-purpose architectural structure.
8. Students will be able to explain the architectural design and explain complex conditions in which a highly complex architectural structure is built.
9. Students will be able to provide an in-depth explanation of an architectural project using conceptual and technical representations and illustrations, in writing and orally.

Component (Course) code
 Master course
 Professor
 Term – semester – Compulsory /
 Optional course
 Language of instruction / Other
 languages for consultative teaching
 Type of course unit + additional
 activities
 ECTS credit
 Contact of Professor

Course Description

*** Course Objective

Course Syllabus

*** Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

189729

Sports Facilities

/

Zgrade za sport

Prof. Boris Koružnjak, M.Sc.

Summer - II semester

Croatian / English

15 lectures/sem

1.0 ECTS

Contact:

Prof. Boris Koružnjak, M. Sc.

boris.koruznjak@arhitekt.hr

office no.: 408 / 4th floor

15 lectures of 45 minutes each, consisting of historical, methodological, and technical data as well as debate on the architecture of sports facilities: sports halls, swimming pool facilities and stadiums.

...

Student should be trained and informed through the acquisition of broad normative, technical, cultural and methodological knowledge in the field of sports as a subject of producing architecture. Preparation and introduction to the method of normative dimensioning and designing sports facilities.

1– SPORTS PHENOMENOLOGY AND FORMS OF ARCHITECTURE
 Methodic reduction, sport-notion, sports participants - "bodytheatre", sport – a global phenomenon, sports and the city, origins of forms of sports facilities, structure rhetorics
 2– POOLS HISTORY- Man and water, artefacts, Greece, Rome, Christianity, re-affirmation of water, contemporary pools,
 3 – FUNCTIONAL SCHEMES OF POOLS
 4 – SWIMMING POOL BASIN – Finnish overflow system, pool technique
 5 – SPORTS HALLS – Functional schemes, types
 6 – SPORTS HALLS – Norms, playgrounds
 7 – SPORTS HALLS – Terraces, technique
 8 – SPORTS HALLS, SWIMMING POOLS – Specific examples - Lecture:
 GUEST
 9- STADIUMS – History
 10- STADIUMS – Norms, functional schemes, types
 11 – STADIUM HALLS, ARENAS
 12– MODERN OLYMPIC GAMES (1896-1952)
 13– MODERN OLYMPIC GAMES (1956-2012)- Lecture: GUEST
 14– SPORTS COMPLEXES ▯ "Hybrid architecture"
 15 – PREVIOUS 10 YEARS

Other Teaching Methods and Assessment Strategies

- Seminar paper

- ZGRADE ZA SPORT – Lecture notes – Prof. Emil Špirić, PhD
 - ENCIKLOPEDIJA FIZIČKE KULTURE
 - SPORTSKA ENCIKLOPEDIJA
 - MODELI FIZIČKE KULTURE – svezak VII – posebni uvjeti građenja i opremanja objekata fizičke kulture: RSIZ fizičke kulture RH, 1987
 - NEUFERT E. -
 - STADIA - A DESIGN AND DEVELOPMENT GUIDE: Geraint John, Rod Sheard, Architectural Press, 2001
 - SPORTS ARCHITECTURE: Rod Sheard, Spon Press, London&NY, 2001
 - ARCHITECTURE FOR SPORT - NEW CONCEPTS AND INTERNATIONAL PROJECTS FOR SPORT AND LEISURE; Peter Sturzebecher, Sigrid Ulrich; Wiley-Academy, 2002
 - SPORTS AND LEISURE: Architecture in Finland, SAFA 1977
 - SPORTSKA ARHITEKTURA U ZAGREBU – Ariana Štulhofer, Zgb. 2005 ▯ izdanje Af

....

Additional Reading:

- Preporuke za projektiranje, izgradnju i održavanje športskih dvorana i igrališta u Zagrebu – 2. svezak: Zagrebački športski savez, Zagreb, June 2007

- Preporuke o održivom programiranju, prostornom planiranju i projektiranju javnih plivališta u gradu Zagrebu – 3. svezak: Zagrebački športski savez, Zagreb, April 2008

- STADIEN 2006 – DER FUSSBALLWELTMEISTERSCHAFT; Gernot Stick, birkhauser, 2005

Architectural periodicals:

- s & b - sport&baeder – Magazine for Sports Architecture

- Casabella, 694/2001, new stadia

- Architectural Review 1146/1992 – OI Barcelona

- Architectural Review 1182/1994 – OI Atlanta

- Architectural Review 1186/1995

- Architectural Review 1244/2000 – OI Australia

- Baumeister 8/1992. – OI Barcelona

- l'ARCA 122/1998 – SPORTS FACILITIES

- AW – architectur+wettbewerb 188/2001 – Buildings for Sport and Leisure

Course Learning Outcomes
 On successful completion of the course, the student will be able to:

1.Evaluate contemporary sports architecture in the context of its historical development.

2.Critically assess the relationship between the function, structure and form of a sports facility.

3.Interpret the phenomenological conditionality of sports architecture.

4.Explain architectural examples important for the development of the contemporary approach to an architectural sports facility project.

5.Interpret elements and functional schemes of certain types of sports facilities.

6.Draw a project programme for a sports facility.

Component (Course) code
 Master course
 Professor
 Term – semester – Compulsory /
 Optional course
 Language of instruction / Other
 languages for consultative teaching
 Type of course unit + additional
 activities
 ECTS credit
 Contact of Professor

Course Description

...
Course Objective

Course Syllabus

...
Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

<p>192514</p> <p>Interior Workshop / Radionica interijera</p> <p>Prof. Dina Vulin Ileković, Ph.D</p> <p>Winter - III semester – Compulsory course</p> <p>Croatian / English</p> <p>45 studio/sem</p> <p>3.0 ECTS</p> <p>Contact: Prof. Dina Vulin Ileković, Ph.D dvulin@arhitekt.hr office no.: 400 / 4th floor</p>	<p>The course focuses on a design project development examining new typology, complex large-scale programs and architectural principles of free topics. Design interior studio is an integral part of the workshop.</p> <p>Architectural workshop is a form of research carried out through a design project which integrates knowledge and skills acquired in the previous years. The assignments set by a supervisor deal with complex architectural programs in a contemporary context encompassing issues relevant to the profession and space development as well as technical and technological innovations.</p> <p>...</p> <p>The workshop stimulates the development of critical thinking towards the program, medium used and culture. The supervisor's role is to define the issue and place it into the context of architectural project research. Professional and cultural context of the assignment as well as the suggested readings are included in the reader which introduces students to project work.</p> <p>Visiting lecturers from the Faculty of Architecture and elsewhere broaden students' knowledge about the context of architecture and analogies with other disciplines as well as about multi-faceted aspects of the contemporary moment. Participation of experts in the fields of the built heritage, theory and history of art and architecture, structural systems, technical installations and architectural structures provides a sound basis for coping with these issues.</p> <p>Project presentation and an exhibition are integral parts of the workshop. Students give presentations during the semester and at the end of it. They are expected to develop an ability to deal with complex architectural issues and critically evaluate new ones using the latest techniques, materials and structures.</p>	<p>Architectural workshop is based on an intensive study of architectural issues and a research-based approach to architectural design. It includes seminar work, presentations and discussions during the semester as well as a final project presentation.</p> <p>Work is organized in groups of 10 students under the supervision of tutors and their associates.</p> <p>....</p> <p>Regular attendance. Completed Interior project. Positively graded project presentation.</p>	<p>Professional journals and monographs: selection according to the chosen assignment</p>	<ol style="list-style-type: none"> 1. Choose information and criteria important for the development of an interior project. 2. Develop an interior project assignment which can be identified in a real-life, everyday context. 3. Independently design interior as integral part of architectural documentation. 4. During the creation of the interior project, creatively suggest a construction solution and appropriate use of materials, colours, lights, technical and technological components in order to achieve an aesthetically pleasing and functional spatial organization and articulation. 5. Present the details of the interior project using graphics and written or oral descriptions. 6. Critically evaluate an architectural interior project.
---	--	---	---	--

Component (Course) code
 Master course
 Professor
 Term – semester – Compulsory /
 Optional course
 Language of instruction / Other
 languages for consultative teaching
 Type of course unit + additional
 activities
 ECTS credit
 Contact of Professor

Course Description

*** Course Objective

Course Syllabus

*** Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

192516

Workshop 3: Architectural Design

/

Radionica 3: Arhitektonsko projektiranje

Assoc. Prof. Krunoslav Šmit, Ph.D.

Winter - III semester – Compulsory course

Croatian / English / Italian / German

150 studio/sem

14.0 ECTS

Contact:

Assoc. Prof. Krunoslav Šmit, Ph.D.

ksmit@arhitekt.hr

office no.: 425 / 4th floor

“Architectural workshops affirm assignments which have not yet been set during the programme. The suggested assignments of the workshops assume and combine complex architectural systems and assemblies; multiple uses, events and meanings, dependency on the urban context and other spatial contexts.”

Within Workshop 3 various professors mentor various projects, some of them presented here:

Typological studies of architectural plans

Typological boundaries of 4* city hotels (2014_2015)

 Trends in development of architectural programs depend in part on specific phenomenon of globalization, work environment that is profiled between real and virtually branded environment, introduction of (virtual) entertainment in areas of free and working time, understanding the scientific paradigm of the world, analog - digital position in architecture and implementation of optimal versus appropriate sustainable (energy) solutions in the fields of architectural construction (Cost Effective Design through a Life Cycle Costing – LCC). Looking together, in synergetic value of mutual influence, the architectonic realities of the information age are formulated. In this context, typology studies of architectural plans and their multifunctional components become the basis for a broader understanding of the architectural composition. Workshop research method integrates interdisciplinary relations in the field of science, art and technology into the body of architectural design. (prof.dr. Homadovski)

City hotel 4* and complementary programs on sites proposed by Workshop leaders.

"Architectural Workshops affirm the tasks that have not yet been placed in the educational process of undergraduate or graduate studies. Professors - workshop leaders - propose tasks and coordinate them at the joint meeting. The proposed tasks of architectural workshop should assume and consolidate complex architectural systems and assemblies; multiplicity of use, events and meanings, dependence of urban or other spatial context. Students investigate and establish a reference frame of problems and formulate theoretical estimations. Presented design at the end of the semester is a concrete, clear concept, drawn in an appropriate scale with all the elements of architecture." (Prof. Geng)

...

Studies of new and/or rare architectural types and their functional components were set up as the basis for a broader understanding of the architectural composition and typology. Understanding the architectural holdings of modern and contemporary world architecture. Understanding architecture in the phenomenon of environmental sustainability at the turn of the 3rd millennium. Application of sustainable and/or appropriate energy approaches in the field of architectural design and construction. Getting to know the

4-star city hotel and complementary programmes on locations suggested by the mentor: “Typological studies of architectural plans – typological limits for 4-star city hotels* (2015)”, “Hotel Plus/Heritage Hotel”, “Refugees_Temporary hotel for refugees”; “Straddle structures”, “Architectural topography of identity_urbs et rurs”.

...

With the Museum for Monuments of Totalitarian Regimes, missing places are formed in transitive memory symbols of previous ideologies, a places that connects political and cultural past, present and possible future ▪ Glass palace - Orangerie - Palmen Garten, location of a new Botanical Garden in Zagreb revalue dialogue with representative palaces of the city framed by Lenuzzi horseshoe composition ▪ Culture Forums on the urban-generative locations ▪ Zagreb Forum Buzin contains theme parks as a corporate communication platforms; eco park, techno park, car park, science park ▪ V. Holjevca Ave. location in Zagreb with the Museum of Contemporary Art contains a range of spatial and programming environments; Visionarijum - Educatorijum as a museum, a park and a media lab. center - promoting natural, scientific and technical activities. ▪ Typology borders of 4* City Hotels in Zagreb locations.

4-star city hotel and complementary programmes on locations suggested by the mentor: “Typological studies of architectural plans – typological limits for 4-star city hotels* (2015)”, “Hotel Plus/Heritage Hotel”, “Refugees_Temporary hotel for refugees”; “Straddle structures”, “Architectural topography of identity_urbs et rurs”.

....

Regular attendance, fieldwork, project supervised by a mentor, project presentation

Compulsory Reading

Current professional reviews in the field of architecture and urban planning (periodicals and monographs)

...

Additional Reading

1. Reading items listed for the courses which cover workshop-related topics

The student who successfully completes the course will be able to:

- Research the chosen topic.
- Critically assess the values of researched parameters.
- Complete a highly complex course assignment on a set topic.
- Support the development of an architectural project with research conclusions.
- Independently create an integral urban and architectural design supported by the conducted research.

Component (Course) code
Master course
Professor
Term – semester – Compulsory /
Optional course
Language of instruction / Other
languages for consultative teaching
Type of course unit + additional
activities
ECTS credit
Contact of Professor

Course Description

Course Objective

Course Syllabus

Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

integration processes between technological-technical and artistic achievements of architectural creation.

Publication of professional papers, scientific research and theoretical work in order to contribute to the scientific field under the mentorship of lecturer. Encouraging the interest for technical and engineering dimensions of architectural creativity in balance with the cultural and artistic dimensions of architecture.

Development of generic skills; cooperative strategies and activities, formation and operation within the team-building environment, modeling ad-hoc skills in information processing and formulation of knowledge. Development of skills and understanding of media presentation standards.

..

Component (Course) code
Master course
Professor
Term – semester – Compulsory /
Optional course
Language of instruction / Other
languages for consultative teaching
Type of course unit + additional
activities
ECTS credit
Contact of Professor

Course Description

*** Course Objective

Course Syllabus

*** Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

192517

Workshop 3: Urban Planning/ Physical Planning/ Landscape Architecture

Radionica 3: Urbanizam/ Prostorno planiranje/ Pejzažna arhitektura

Prof. Bojana Bojanić Obad
Šćitaroci, Ph.D.

Winter - III semester –
Compulsory course

Croatian / English / Italian /
German / French

150 studio/sem

14.0 ECTS

Contact:

Prof. Bojana Bojanić Obad
Šćitaroci, Ph.D.

bbojanic@arhitekt.hr

office no.: 426 / 4th floor

URBANSCAPE EMANATION _ SPACE VS. –SCAPE. Space is the boundless. -scape a specified scene. Un-volumetric architecture. Rediscovery of Space _ Impressions, Modifications of Consciousness /A Search for the Meaning of Time and Structures in the Space. Practice is 'knowing how to do something; theory is knowing why.' Garrett Eckbo. Emanation - the effect that any entity, system, and/or being has on its environment. Walking choreographies, visual illusions and emotional landscapes of waiting. Emanation - emission: the act of emitting; causing to flow forth. "OUR EPOCH [AS] ONE IN WHICH SPACE TAKES FOR US THE FORM OF RELATIONS AMONG SITES" MICHEL FOUCAULT . What then is time? If no one asks me, I know; if I want to explain it to a questioner, I do not know... We measures times. But how we measure what does not exist? The past is no longer, the future is not yet. And what of the present? The present has not duration... In order that we may compare a short and a long syllable, both must have died away. Thus I do not measure the syllables themselves, but the images of the two tones in my memory... Thus when I measure time, I measure impressions, modifications of consciousness. (Saint Augustin).

...
The objective is to create a paradigm that is independent of the location, nature, scale, time and technology. This paper presents a network of key terms and concepts taking into account the location, context and program. Integrating the classification, structure and analysis, and promoting discussion. Way of designing is transforming the choreography of movement, of visual illusions and of sensory landscapes.

ACHIEVING the completeness of a space and respecting the existing space. Create an image of a space. Discover analysing how a space can be changed in relation to time: WHAT WAS IT? WHAT COULD IT BE? CONTENT FRAMEWORKS AND SPACE ELEMENTS natural and cultural determinants. Elements which encourage INTERACTION: causes_effects_time. FUNCTION as space dynamics. Types of movement. STRUCTURE is made of structural elements: points (distinguishing features), lines (corridors), areas, nodes, edges, matrices. Introduction to ISOVIST, connecting spatial behaviour and experience and the constructed project.

Other Teaching Methods and Assessment Strategies
Presentation, poster and booklet.

Compulsory Reading
A SELECTION based on the chosen assignment

....

1. Contemporary examples from academic publications and periodicals (a wider selection of reading items will be offered by the coordinator upon choosing the assignment (approximately 5 items per assignment)).
2. A compilation of articles which will be made by the student, with the help of the professor, upon choosing the assignment.

On successful completion of the course, the student will be able to:

1. Apply the methods of urban planning and landscape architecture and other methods of spatial analysis in the context of landscape development and changes.
2. Apply the knowledge of the researched landscape.
3. Present the analysis of spatial development and changes of researched landscape.
4. Identify space identity factors and landscape types important for setting the criteria for contemporary interventions taking into consideration the historical and physical/existing context planned in the physical planning documentation.
5. Evaluate the researched landscape within and/or outside a settlement in order to preserve recognisable values and set the criteria for potential contemporary interventions.
6. Design an integrated spatial/urban landscape design proposal for contemporary interventions on land within or outside a settlement.

Component (Course) code
 Master course
 Professor
 Term – semester – Compulsory /
 Optional course
 Language of instruction / Other
 languages for consultative teaching
 Type of course unit + additional
 activities
 ECTS credit
 Contact of Professor

Course Description

*** Course Objective

Course Syllabus

*** Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

192517

Workshop 3: Urban Planning/ Physical Planning/ Landscape Architecture

Radionica 3: Urbanizam/ Prostorno planiranje/ Pejzažna arhitektura

Prof. Srećko Pegan, Ph.D

Winter - III semester –
 Compulsory course

Croatian / English / Italian

150 studio/sem

14.0 ECTS

Contact:

Prof. Srećko Pegan, Ph.D
srecko.pegan@arhitekt.hr
 office no.: 431 / 4th floor

Policies and perspectives of development – the Mediterranean context of the use and protection of the coastal area – subject review
 Exploration and assessment of space potential – SWAT analysis of space changes – identity, “brand”, spatial conditions, planning principles ... the concept of transformation of a part of the coastal area.

Presentation of the project through stages, public exhibition

...

The assignment aims to explore and suggest possible courses of development of a selected coastal area.

The proposed solution encompasses check-up and setting up the requirements for the development of a wider area as well as a detailed program of the selected sites with emphasis on space design and preservation of ambient values.

Overview of selected coastal development and utilisation proposals and designs □ research paper (seminar). SWAT analysis of spatial development of the Adriatic or continental coastal area.

Programme proposal and conceptual physical design of the development of a part of a coastal area.

The paper and the selection of the research area is individual, with weekly presentations of previously submitted research results.

1. SEMINAR PAPER

- Introduction to the methods for determining spatial indicators for planning of the chosen topic.

(prepared in the form of an overview paper; the best papers will be recommended for publishing in a scientific journal and will be the candidates for the Dean's Award)

2. SPATIAL DESIGN

- Comparative analysis of tourist areas in county physical plans (position, type, typology, development programme, brand, identity)

- Excerpt from the municipality physical development plan/urban development plan

3. Problem chart □ Purpose, circulation, landscape, obligatory programme indicators

4. Concept of spatial/urban design (if necessary □ supplement to the municipality physical development plan) and urban development plan programme

5. Spatial concept (variants), structure, 3D model (1:2,000)

6. Presentation and public exhibition of submission

Other Teaching Methods and Assessment Strategies

Attendance of lectures, seminar papers, drafting and presentation of a physical planning proposal

Compulsory Reading

Marinović-Uzelac, A. (2001): Prostorno planiranje, Dom i svijet, Zagreb, ISBN 410511020

Pegan, S (2010): Prostorno planiranje II - zaštita prirode i okoliša - compendium predavanja, SZ, AF

Pegan, S. (2011): Prostorno planiranje I - compendium predavanja, SZ, AF

Additional Reading

1. Barbieri, P. (ed.) (2009): Hyper Adriatica, LiSt, Barcelona, ISBN-978-88-95623-19-1

2. Graaf, J. at al. (ed.): Europe: Coast Wise, 010 publishers, Rotterdam, 1997

3. MVRDV: The Regionmaker RheinRuhrCity, ISBN 3-7757-1200-3

4. Pogačnik, A. (2004): Kako izdelamo prostorske načrte, Maribor, ISBN 961-230-288-X

5. SPURH (2009): Kriteriji za planiranje turističkih predjela obalnog područja mora, MZOPUG, Zagreb

6. SPURH (2010): Smjernice i kriteriji za planiranje golfskih igrališta, Zagreb,

7. Jenks, M. & Burton, E., Williams, K. (1996) The Compact City, a Sustainable Urban Form?, Oxford: Spon Press, ISBN 0-419- 21300-7

8. *** MZOPUG (2009): Strategija održivog razvitka Republike Hrvatske, Official Gazette 30/09

9. *** MZOPUG: Program prostornog uređenja Republike Hrvatske, Zagreb, ISBN 953- 97403-1-2

10. *** MZOPUG (2011): Smjernice i kriteriji za arhitektonsku vrsnoću građenja, Zagreb

On successful completion of the course, the student will be able to:

- Apply the knowledge of physical planning in a physical planning design.

- Create a physical planning design based on the assessment of research results.

- Explain the physical planning design proposal and create a plan and programme for its realisation.

- Evaluate alternative proposals for the physical planning design.

Component (Course) code
 Master course
 Professor
 Term – semester – Compulsory /
 Optional course
 Language of instruction / Other
 languages for consultative teaching
 Type of course unit + additional
 activities
 ECTS credit
 Contact of Professor

Course Description

Course Objective

Course Syllabus

Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

192517

**Workshop 3: Urban Planning/
 Physical Planning/ Landscape
 Architecture**

/
**Radionica 3: Urbanizam/
 Prostorno planiranje/
 Pejzažna arhitektura**

Prof. Tihomir Jukić, Ph.D.

**Winter - III semester –
 Compulsory course**

Croatian / English / Italian

150 studio/sem

14.0 ECTS

A good layout is the basis of all satisfactory urban development, and can only be achieved when the plan derives its inspiration from the site and when the three-dimensional aspect of design is properly studied. The successful urban design proposal depends upon the relationship of the building masses to each other, to the street and space about them, to the land use and their proper setting in the urban landscape. Physical signs of new activities in towns will appear in a realization that riverfronts, coast-fronts and other areas within the city, representing an opportunity for stunning rehabilitation. Downtown should be planned for people and not for cars. Development planning should concentrate on the quality of life and not on the growth as a goal. Urban clusters should be tight, integrated with transit, and designed for pedestrians and should contain a variety of spaces and activities. The available capacity of downtown should be renewed. Downtown will increasingly attract residents and investment.

...
 Understanding of urban problems. Master the big urban scale. Principles of urban composition. Management of urban spaces. Examine procedure in urban planning.

1 to 6 Introducing the assignment, choosing the methodology, getting familiar with the project site and urban or physical planning problem, inspecting the site, analysing the existing urban planning or physical planning documentation; 7 to 12 Drafting a problem chart, drafting a preliminary concept, discussion, designing a detailed urban plan, urban or physical development plan; 13 to 15 Introduction to design techniques. Developing a project and drafting the assignment.

—
 Other Teaching Methods and Assessment Strategies
 Required level of knowledge is achieved through seminar papers, critical discussions with visiting experts and through topical lectures

....
 Attendance of lectures, seminar papers, drafting and presentation of an urban planning proposal.

Compulsory Reading

1. Contemporary examples from academic publications and periodicals (a wider selection of reading items will be offered by the coordinator upon choosing the assignment (approximately 5 items per assignment)).
2. Contemporary examples from academic publications and periodicals (a wider selection of reading items will be offered by the tutor upon choosing the assignment (approximately 10 items per assignment)).

Additional Reading

1. International examples of similar solutions
2. Croatian examples of similar solutions

On successful completion of the course, the student will be able to:

- Interpret physical planning concepts through urban design.
- Create an urban design based on the results of research.
- Explain urban design proposal and create a plan and programme of realisation.
- Evaluate alternative urban design proposals.

Contact:
 Prof. Tihomir Jukić, Ph.D.
tihomir.jukic@arhitekt.hr
 office no.: 402 / 4th floor

Component (Course) code
 Master course
 Professor
 Term – semester – Compulsory /
 Optional course
 Language of instruction / Other
 languages for consultative teaching
 Type of course unit + additional
 activities
 ECTS credit
 Contact of Professor

Course Description

*** Course Objective

Course Syllabus

*** Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

79206

Croatian Architects - Authorial Approaches

/
Autorski pristupi hrvatskih arhitekata

Prof. Andrej Uchytal, Ph.D

Winter – Optional course

Croatian / English

15 lectures/sem

1.0 ECTS

Contact:

Prof. Andrej Uchytal, Ph.D
andrej.uchytal@arhitekt.hr
 office no.: 409 / 4th floor

This theoretical graduate course is conceived as an upgrade to the regular undergraduate course under the title "Twentieth century Croatian architecture". It examines, analyzes and interprets remarkable architect's oeuvres, anthological works and creative processes of prominent Croatian architects starting from the 19th century up to the present. Series of lectures are structured according to the architect's education, area of activity and generation's affiliation. Methodological units: 1. Defining the nineteenth century profession of architecture/ 2. Croatian architecture's benchmarks – Bartol Felbinger – Viktor Kovačić – Drago Ibler/ 3. Graduate architects from the period 1918-1945: a) Technical Faculty in Zagreb, b) „Ibler's School“ at the Academy of Fine Arts in Zagreb, c) European Universities/ 4. Architects and graduates of Faculty of Architecture in Zagreb after the year 1945/ 5. Architects graduated in the Republic of Croatia after the year 1991. Depending on the attending student population affinity, the selection for the curriculum is derived from the course's material, which consists of 75 architect's oeuvres. Lectures (1-4) are obligatory for each academic semester, and lectures (5-11) are held in cyclic quadrennial terms, during which the total extend of the material will have been presented. By the end of the semester, lectures are updated with the current architectural themes (12-15). The course is open to all studies and classes of students from the University of Zagreb.

...
 Creating critical stance towards the modernistic architectural heritage. Lectures interpret each architect's professional *modus operandi*, on the basis of conceptual, social, artistic, contextual and cultural aspect of his approach, and elaborates upon that specific author's contribution. Anthological works are analyzed from the perspective of their conceptual, functional, formal and structural properties in order to understand the issues of architectural synthesis. Mastering this course acquires the body of knowledge about architecture which can be used as a reference memory of architect's individual activity. Students will gain in-depth knowledge of values of Croatian architecture that constitute the "Zagreb School of Architecture" and special formal features of regional centres, as the specific phenomenon of European architectural and cultural space. The problems of continuity of Croatian architecture within the global trends is discussed. The course is directly associated with the scientific project "Atlas of the twentieth century Croatian architecture" of the Faculty of Architecture at the University of Zagreb.

Introduction: Croatian architects – Lexicon of architects from the 20th century Croatian architecture atlas/ 2. Bartol Felbinger/ 3. Viktor Kovačić/ 4. Drago Ibler/ 5. Alfred Albini/ 6. Ernest Weissmann/ 7. Nikola Dobrović/ 8. Drago Galić/ 9. Vladimir Turina/ 10. Neven Šegvić/ 11. Ivan Vitić/ 12. Viktor Kovačić Award for Lifetime Achievement 2011: Ivan Crnković/ 13. Student's seminar papers - Presentation of architects awarded by UHA prizes: Viktor Kovačić, Drago Galić, Bernardo Bernardi, Neven Šegvić/ 14. Guest lecture - presentation of the thesis defended on the works of architect/ 15. About the exam and seminar papers; literature, Course's material: I. Fischer, A. Bastl, R. Lubynski, V. Kovačić, E. Šen, A. Baranyai, H. Ehrlich, J. Kodl, V. Šterk, I. Zemljak, H. Baldasar, D. Ibler, A. Albini, J. Denzler, M. Kauzlaric, N. Dobrović, B. Petrović, F. Cota, B. Auer, Z. Neumann, L. Horvat, J. Neidhardt, S. Planić, E. Steinmann, Z. Strizić, A. Ulrich, Z. Vrkljan, I. Antolić, D. Galić, E. Weissmann, Z. Dumengjić, S. Löwy, J. Pičman, J. Seissel, F. Bahovec, Z. Požgaj, E. Ciciliani, K. Ostrogović, H. Bauer, M. Haberle, S. Fabris, L. Perković, B. Rašica, V. Turina, D. Vesanović, V. Richter, N. Šegvić, I. Vitić, A. Čičin-Šain, R. Nikšić, B. Bernardi, A. Dragomanović, Z. Bregovac, N. Šilović, M. Begović, M. Vodička, I. Emili, F. Gotovac, B. Magaš, I. Radić, E. Šmidihen.

....

Requirements
 Regular class attendance.

Exam
 Seminar work and oral examination. Oral ppt presentation of the selected architect's oeuvre.

Compulsory Reading

- Uchytal, A., Barišić Marenčić, Z., Kahrović, E. (2011), Lexicon of Architects - Atlas of Croatian Architecture of XXth century1, University of Zagreb, Faculty of Architecture, Zagreb
 - Uchytal, A., Barišić Marenčić, Z., Kahrović, E. (2009), Leksikon arhitekata Atlasa hrvatske arhitekture XX. stoljeća, Arhitektonski fakultet Sveučilišta u Zagrebu, Zagreb
 - *** (2011), Smjernice za studiranje hrvatske arhitekture 20. stoljeća, - Komparativna građa – Antologijska djela hrvatske arhitekture 20. stoljeća, repozitorij-biblioteka
 - *** (2010), Smjernice za studiranje hrvatske arhitekture 20. stoljeća, HA 20 Kronološki pregled 1901.-2000., repozitorij-biblioteka
 - *** (2010), Smjernice za studiranje hrvatske arhitekture 20. stoljeća – Arhitekti, repozitorij-biblioteka
 - *** (2010), Smjernice za studiranje hrvatske arhitekture 20. stoljeća – Literatura, repozitorij-biblioteka
- ### 2. Additional Reading
- Čorak, Ž. (1981), U funkciji znaka, Drago Ibler i hrvatska arhitektura između dva rata, Društvo povjesničara umjetnosti Hrvatske, Zagreb
 - Domljan, Ž. (1979), Hugo Ehrlich, Društvo povjesničara umjetnosti Hrvatske, Zagreb
 - Dubrović, E. (2006), Ninoslav Kučan, Muzej grada Rijeke, Rijeka
 - Dubrović, Ž. (2007), Zdravko Bregovac, Muzej grada Rijeke, Rijeka
 - Juras, I., Uchytal, A., Štulhofer, A. (2007), Arhitekt Ivan Vitić, Acta Architectonica, Arhitektonski fakultet Sveučilišta u Zagrebu, Zagreb
 - Schwalba, R. (1999), Igor Emili, Muzej grada Rijeke, Rijeka
 - Tušek, D. (2001), Dinko Vesanović, Društvo arhitekata Splita, Split
 - Uchytal, A. (2007), Dubrovačke pouke arhitekta Nevena Šegvića, Udruženje hrvatskih arhitekata, Sveučilište u Zagrebu, Arhitektonski fakultet, Zagreb
 - Uchytal, A. (2003), Stratificiranje projektantskog opusa arhitekta Nevena Šegvića, Prostor, Sveučilište u Zagrebu, Arhitektonski fakultet, 2(26): 145-156, Zagreb
 - Uchytal, A., Štulhofer, A. (2007), Arhitekt Alfred Albini, Acta Architectonica, Arhitektonski fakultet Sveučilišta u Zagrebu, Zagreb
 - Uchytal, A., Štulhofer, A. (2007), Arhitekt Ernest

- Explain the creative process behind the creation of an architectural work.
- Critically assess the system of cultural and civilizational values important for the creation of an architectural work.
- Evaluate the achievements of Croatian architects by taking into consideration the socio-historical context in which it was created.
- Interpret the visual memory of mastered curriculum which serves as an architect's reference tool.
- Interpret the archives in order to synthesize new discoveries about a more complex whole in the domain of architectural creations.
- Write a critical review of a designed or constructed project, or of an architect's body of work.
- Explain the achievements of Croatian architects in international modern and contemporary architecture discourse.

Component (Course) code
Master course
Professor
Term – semester – Compulsory /
Optional course
Language of instruction / Other
languages for consultative teaching
Type of course unit + additional
activities
ECTS credit
Contact of Professor

Course Description

Course Objective

Course Syllabus

Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

Weissmann , Acta Architectonica , Arhitektonski fakultet Sveučilišta u Zagrebu, Zagreb
12. Uchytíl, A., Štulhofer, A. (2007), Arhitekt Neven Šegvić , Acta Architectonica, Arhitektonski fakultet Sveučilišta u Zagrebu, Zagreb
13. Uchytíl, A., Štulhofer, A., Barišić Marenić, Z. (2007), Arhitekt Franjo Bahovec , Acta Architectonica , Arhitektonski fakultet Sveučilišta u Zagrebu, Zagreb
14. Uchytíl, A., Štulhofer, A., Barišić Marenić, Z. (2007), Arhitekt Zvonimir Požgaj, Acta Architectonica, Arhitektonski fakultet Sveučilišta u Zagrebu, Zagreb
15. Uchytíl, A., Štulhofer, A., Barišić, Z. (1998), Drago Galić – dossier, Arhitektonski fakultet Sveučilišta u Zagrebu, Zagreb
16. Uchytíl, A., Štulhofer, A., Muraj, I. (2007), Arhitekt Egon Steinmann, Acta Architectonica, Arhitektonski fakultet Sveučilišta u Zagrebu, Zagreb
17. Vrkljan, Z. (1995), Sjećanja, Sveučilište u Zagrebu, Zagreb
18. *** (1991), Arhitekti članovi JAZU, Rad HAZU, Knjiga 437, Galić D. (ed.), HAZU, Globus-Nakladni zavod, Zagreb
19. *** (2002), Arhitektura – Neven Šegvić, Grimmer V. (ed.), XLV : 211, UHA, Zagreb
20. *** (2003), Arhitekt Viktor Kovačić: život i djelo, Begović M. (ed.), Hrvatska akademija znanosti i umjetnosti, Hrvatski muzej arhitekture, Zagreb
21. *** (2003), Stjepan Planić 1900.-1980. katalog izložbe, Kožarić I. (ed.), Institut za povijest umjetnosti, Gliptoteka, HAZU, Zagreb
22. *** (2005), Arhitektura – Ivan Vitić, Grimmer V., Kisić D. (ed.), LIV: 217, UHA, Zagreb
23. ***(2005), Radovan Nikšić 1920.-1987. - katalog izložbe, Kisić D. (ed.), Hrvatski muzej arhitekture, HAZU, Zagreb
24. *** (2006), Rukopisi Vladimira Turine, Mattioni V. (ed.), UPI-2M PLUS, Zagreb
25. ***(2008), Arhitektura - Kazimir Ostrogović, Grimmer V., Turato I. (ed.), UHA, Zagreb

Component (Course) code
 Master course
 Professor
 Term – semester – Compulsory /
 Optional course
 Language of instruction / Other
 languages for consultative teaching
 Type of course unit + additional
 activities
 ECTS credit
 Contact of Professor

Course Description

*** Course Objective

Course Syllabus

*** Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

<p>79196</p> <p>English for Architecture 4 / Engleski jezik za arhitekturu IV</p> <p>Senior lecturer Neda Borić, Ph.D.</p> <p>Winter – Optional course</p> <p>English</p> <p>15 lectures/sem</p> <p>1.0 ECTS</p> <p>Contact: Senior lecturer Neda Borić, Ph.D. nboric@arhitekt.hr office no.: 306 / 3rd floor</p>	<p>The course focuses on the acquisition of specialist terminology, developing reading skills, improving general English vocabulary, improving oral communication skill, presentation skills, business communication skills (employment). Course materials are based on a selection of authentic texts from various sources with architecture and urban planning-based topics.</p> <p>Topics: redevelopment and renovation projects, famous architects, sustainable human settlements, architecture for the 21st century, business communication (employment)</p> <p>...</p> <p>Students are expected to develop their written and oral competence in English for architecture purposes in order to be able to meet the requirements of their academic education and future professional work. Knowledge and skills acquired should help them in their future professional careers as well as to integrate more successfully into the international business, professional and scientific community within the architectural profession.</p> <p>Knowledge and skills: Developing oral and written communication competence, developing reading skills, presentation skills, improving the knowledge of specialist and general English vocabulary, business communication skills for employment purposes.</p>	<p>Course syllabus</p> <ol style="list-style-type: none"> 1. INTRODUCTION – Course content, instructions 2. REDEVELOPMENT AND RENOVATION, Part I (lexical groups, gerund / infinitive) 3. REDEVELOPMENT AND RENOVATION, Part II (phrasal verbs, translation exercises, group discussion, additional reading assignments) 4. TADAO ANDO (part I) (text functions, text cohesion – purpose connectors, translation exercises, additional reading assignments) 5. TADAO ANDO (part II) 6. SUSTAINABLE HUMAN SETTLEMENTS – Planning Neighbourhoods 7. SUSTAINABLE HUMAN SETTLEMENTS, Case Study (independent group work on projects that students choose according to their interest and on related planned exercises) 8. ARCHITECTURE FOR THE 21st CENTURY – Case Study (part I)(independent group work on projects that students choose according to their interest and on related planned exercises) 9. ARCHITECTURE FOR THE 21st CENTURY (part II) 10. GETTING A JOB (part I) (job advertisements, job application, CV, job interview, job offer, employment contract) 11. GETTING A JOB (part II) <p>The remaining classes will cover the topics listed above flexibly, depending on their scope and complexity. They will also cover the oral presentations of specialist topics which students chose according to their own interests. The course requires considerable independent work.</p> <p>Other Teaching Methods and Assessment Strategies:</p> <ul style="list-style-type: none"> - Seminar paper on a chosen topic and oral presentation of the topic - Regular attendance 	<p>Compulsory Reading</p> <ul style="list-style-type: none"> - University textbook: Borić, N. (2007). English for Architecture and Urban Planning. Golden marketing, Tehnička knjiga. Zagreb - General and specialized dictionaries <p>Additional Reading – Texts from various sources</p>	<ol style="list-style-type: none"> 1 The student will be able to read all specialist texts in English and understand and reinterpret them on their own, both during their academic education and in their work. 2 The student will be able to use specialist terminology appropriately, in speech and writing. 3 The student will be able to analyze any complex specialist topic and write about it in English. They will also be able to express their opinions supported by valid arguments. 4 The student will be able to independently hold a presentation of complex aspects of specialist topics. 5 The student will be able to participate in complex critical discussions. 6 The student will know what to do in a professional environment (employment: understand job advertisements, write an application and a CV, understand an employment contract, successfully present themselves and their competencies in a job interview etc.).
--	--	---	--	---

Component (Course) code
 Master course
 Professor
 Term – semester – Compulsory /
 Optional course
 Language of instruction / Other
 languages for consultative teaching
 Type of course unit + additional
 activities
 ECTS credit
 Contact of Professor

Course Description

Course Objective

Course Syllabus

Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

81949

Industrial Archaeology
 /
Industrijska arheologija

**Assoc. Prof. Zrinka Barišić
 Marenić, Ph.D.**

Winter – Optional course

Croatian / English / German

15 lectures/sem

1.0 ECTS

Contact:

Assoc. Prof. Zrinka Barisic
 Marenic, Ph.D.
zrinka.barisic@arhitekt.hr
 office no.: 2 / -1 floor

The course deals with industrial heritage (factories and industrial ares) and technical monuments in wider sense (railway stations, markets, etc) with the purpose of establishing this category of architectural heritage in the context of social and technical history as well as in the architectural and urban planning context. The regeneration and re-use of the wider category of technical monuments heritage is dealt with in the greatest part of lectures.

...
 Acquaintance with worldwide and Croatian industrial heritage, and the examples of re-use of industrial heritage as a basis for working on re-use projects for these buildings.

1. Industrial heritage, organization of the subject, its definition and methodology. Affirmation of interdisciplinary approach. 2. Historical framework. Historical development of industrialization in the world with special reference to Great Britain as the home country of the First Industrial Revolution. 3. Historical outline of the development of industry in Croatia. Reasons for its late appearance and introduction of only particular types of industry. 4. Technical culture buildings. Definition and the subject scope. Problems linked to location, spatial and structural principles. Evaluation. 5. Industrial heritage worldwide. Representative examples of technical monuments, their conservation and presentation. 6. Industrial heritage in Croatia. Representative examples (Zagreb, Rijeka, Rovinj, Osijek, Karlovac, Zadar, Split ...). 7. Regeneration and re-use of industrial heritage. Aims and principles of re-use, its methodology, socio-economic aspects and re-use selection criteria. 8. A historical outline of industrial heritage re-use. World (St. Catherine Docks, London; Cannery, San Francisco...) and Croatian re-use examples (Gliptoteka, Zagreb). 9. Regeneration of industrial zones. Industrial- archaeological parks. 10. Re-use of industrial heritage for housing purposes. Analysis and critical review of representative examples. 11. Re-use of industrial heritage for commercial purposes. Analysis and critical review of representative examples. 12. Re-use of industrial heritage for mixed purposes. 13. Re-use of industrial heritage for cultural purposes. Analysis and critical review of representative examples. 14. Re-use of industrial heritage for museums and galleries. Analysis and critical review of representative examples. 15. Bright future? Prospects.

...

Seminar work and oral .ppt presentation of the selected theme.

Compulsory Reading

1. Stratton, M.: Industrial Buildings Conservation and Regeneration, E&FN Spon, 2000
 2. Hitchcock, H.R.: Architecture: Nineteenth and Twentieth Centuries, The Pelican History of Art, Penguin Books, 1978
 3. Meurs, P.; Steenhuis, M.: Reuse, Redevelop and Design: How the Dutch Deal with Heritage, nai010 publishers in association with Cultural Heritage Agency of the Netherlands, Ministry of Education, Culture and Science, Rotterdam, 2017
 4. ... Grad za 21. stoljeće, zbornik radova prvog hrvatskog simpozija o industrijskom naslijeđu (ed. Goršić, Mirjana), Karlovac, 2000

2. Additional Reading

1. Binney, M.; Machin, F.; Powell, K.: Bright Future, The Re-use of Industrial buildings, SAVE Britain's Heritage, 1990
 2. Mazzotta, D.: Archeologia Industriale, la Stagione del Recupero, IUAV, Venecija, 1995
 3. Related papers published within: I., II., III., IV., V. međunarodna konferencija o industrijskoj baštini PRO TORPEDO, Rijeka, 2005 – 2012

On successful completion of the course, the student will be able to:

1. Critically assess the industrial built heritage and built heritage associated with technical and infrastructural achievements.
2. Evaluate the significance of individual designs.
3. Assess the spatial, construction and urban planning potential of industrial heritage.
4. Explain the necessity for restoration.
5. Interpret the quality of reference architectural and urban planning restoration work.
6. Suggest regeneration, or bottom-up interventions, artistic actions, temporary use etc., depending on the needs of the local community.
7. Integrate acquired knowledge as the basis of a restoration project.
8. Plan the restoration of abandoned industrial heritage, especially the most threatened sites.
9. Categorize industrial heritage according to significance, level of threat and restoration priority.
10. Write a conclusion for a research paper on industrial built heritage and built heritage associated with technical achievements.

Component (Course) code
Master course
Professor
Term – semester – Compulsory /
Optional course
Language of instruction / Other
languages for consultative teaching
Type of course unit + additional
activities
ECTS credit
Contact of Professor

Course Description

*** Course Objective

Course Syllabus

*** Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

162996

**Summer School Ambientura
Pučišća**
/
**Ljetna škola Ambientura
Pučišća**

**Associate Prof. Ivan Mlinar,
Ph.D.**

Winter – Optional course

Croatian / English

**15 lectures/sem
Summer school at the island
of Brač**

In order to attend course in
August, please do contact
professor at imlinar@arhitekt.hr,
immediately after selection of
course

1.0 ECTS

Contact:
Associate Prof. Ivan Mlinar,
Ph.D.
ivan.mlinar@arhitekt.hr
office no.: 423 / 4th floor

The relationship between tradition and modernity in architecture, as a fundamental topic of the summer school program, is analyzed through evaluation of local architectural achievements. Trips to interesting and valuable historical and architectural sites are organized by the School: Blaca, Škrip and the island of Hvar (Vrboska, Starigrad, Hvar). Visiting lecturers take part in the summer school work giving lectures in architecture, art history, history, archaeology etc. The School's objective is to work

out detailed analyses of the existing ambiances and put forward proposals for possible revitalization of structures in historic ambiances as well as intervention in the existing historic nuclei in view of adapting to modern requirements yet respecting the built heritage.

...
Developing ability to create space and tourist facilities in a responsible way. The role of architects in planning, design and implementation.

Ambientura Summer School covers topics, methods and tasks related to urban planning and architecture through identification, analysis and valorization of space and programming, creation, presentation and explanation of the urban planning and architectural concept and design.

Compulsory Reading

1. Vukić, F. (2013), Grad kao identitetski sustav: Prema metodi sustavnog projektiranja identiteta, Sveučilište u Zagrebu, Arhitektonski fakultet, Studij dizajna, Zagreb
2. Pegan, S. (2007), Urbanizam – Uvod u detaljno urbanističko planiranje, Arhitektonski fakultet Sveučilišta u Zagrebu, Acta architectonica – Udžbenici i priručnici 5, Zagreb
3. Hržić, M. (1988), Percepcijski pristup oblikovanju grada u okviru procesa planiranja, disertacija, Sveučillita u Zagrebu, Arhitektonski fakultet, Zagreb
4. Lynch, K. (1974), Slika jednog grada, Građevinska knjiga, Beograd
5. Grgurević, O. (1994), Od pojma slike grada do pojma opće slike krajolika, Prostor 2, 1 (3-4): 285290, Zagreb

Additional reading will be decided upon depending on the chosen Ambientura Summer School site.

- Analyze spatial features – identify examples of good practice – creatively apply theoretical and practical knowledge about space – identify, analyze, evaluate, program, create, present and explain an urban planning and architectural concept and design of a space – participate in research and project teams.

Component (Course) code
 Master course
 Professor
 Term – semester – Compulsory /
 Optional course
 Language of instruction / Other
 languages for consultative teaching
 Type of course unit + additional
 activities
 ECTS credit
 Contact of Professor

Course Description

Course Objective

Course Syllabus

Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

79216

Summer School: Tradition, Creativity and Sustainability – Motovun

/
Ljetna škola: Tradicija, kreativnost i održivost – Motovun

Prof. Ljubomir Mišćević

Winter – Optional course

English or Croatian / English

15 lectures/sem

Summer school in Istria

In order to attend course in August, please do contact professor at lmiscevic1@arhitekt.hr, immediately after selection of course

1.0 ECTS

Contact:

Prof. Ljubomir Mišćević
ljubomir.miscevic@arhitekt.hr
 office no.: 327 / 3rd floor

Study of traditional heritage as a starting point of a creative interpretation in design assignments focused on renewal of the Istrian town. Renewal model based on conversion and conservation. Public urban space, urban entities and architectural details. Application of CAAD software. Critical dialogue, public interpretation, exhibitions and publications. International cooperation with the Faculties of Architecture in Ljubljana, TU Vienna (Ubergange workshop), Padua, Venice, Darmstadt, Aachen, CED Berkeley - the USA.

...

Exchange of experiences and work methods among various faculties from different countries. Communication in English as an official foreign language for all teaching formats: lectures, studios, seminars and field class. Restoring continual communication among students, professors and faculties.

1. URBAN MATRIX OF A MEDIEVAL TOWN Research into typical matrices (matrix mapping), renewal models: conservation, conversion, preconditions for the integration of modern urban infrastructure (traffic, public utilities, safety requirements etc.), interpolations
2. PUBLIC URBAN SPACE Squares, streets and other pedestrian precincts, open and enclosed spaces, flexible purpose: occasional and permanent conversion (festivals, concerts, art installations...), modern standards of life: adapting communications (lighting, spatial barriers, safety requirements etc.)
3. COMPUTER-AIDED DESIGN CAAD, computer base for urban and architectural projects, 3D modeling, animation
4. APPROPRIATE CONVERSION OF AUSTRO-HUNGARIAN FORTIFICATIONS Survey, making inventory and architectural design intended for an appropriate conversion of Austro-Hungarian fortifications: Mali Brijun, Barbariga, Pula)
5. MODERN ARCHITECTURE IN ISTRIA Architecture and urban planning between the two World Wars (Raša, Pula)
6. CONTEMPORARY ARCHITECTURE Study, analysis and a critical dialogue about all functional types of architecture (housing, tourism, education, sports and recreation, culture, entertainment and leisure)
7. INTERPOLATION Architectural and urban planning assignments on sites in Motovun and other towns and areas in Istria
8. ARCHITECTURAL COMPETITIONS International architectural student competitions, projects and participations (Trieste EXPO etc.)
9. METHODS AND TECHNIQUES IN RESTORATION AND CONSERVATION Methods, technology, materials, machinery and equipment
10. RENOVATION OF THE ISTRIAN RAILWAY PARENZANA Physical plan of the Istrian county. Renovation concept, reconstruction, conversion, reuse

11. SUSTAINABLE ARCHITECTURE AND URBAN PLANNING Sustainable development, architecture based on climatic, ecological and energy-related issues, vernacular heritage, bioclimatic principles, indigenous materials, energy-efficiency
12. ECO-TOURISM Rural areas, renewal, permaculture, indigenous forms of living, new development models
13. FIELD CLASS Site visits in Istria (Motovun, Grožnjan, Oprtalj, Završje, Buzet, Roč, Hum, Plomin, Labin, Raša, Pazin, Poreč, Vrsar, Rovinj, Pula, National park Brijuni, Sv. Lovreč, Dvigrad, Sv. Petar u šumi, Vodnjan, Bale, Umag)
14. EXHIBITION AND PUBLICATIONS Exhibition - final presentation of drawings, models and projections, digital catalogue - internet exhibition on the web site of the Faculty: www.arhitekt.hr
15. PHOTOGRAPHY AND VIDEO Architectural classical and digital photographs, laboratory work, seminar, course, exhibition, publishing, experimental video-art, projections - performance

Component (Course) code
 Master course
 Professor
 Term – semester – Compulsory /
 Optional course
 Language of instruction / Other
 languages for consultative teaching
 Type of course unit + additional
 activities
 ECTS credit
 Contact of Professor

Course Description

*** Course Objective

Course Syllabus

*** Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

66413

**Computer-Aided Design in
 Landscape Architecture**
 /
**Računalno oblikovanje
 pejzažne arhitekture**

Prof. Bojan Baletić, Ph.D.

Winter – Optional course

Croatian / English

15 lectures/sem

1.0 ECTS

Contact:

Prof. Bojan Baletić, Ph.D.
bojan.baletic@arhitekt.hr
 office no.: 528 / 5th floor

The course offers an overview of computer aided modeling techniques for landscape architecture. The topics include a basic systematization of elements for computer modeling and visualization of objects (natural and manmade) and phenomena. More detailed information on documentation process, as well as topics on multimedia presentation of the results.

...
 The course will offer a broad view of the evolving computer tools for the architectural profession, with special focus on the tools that are essential for landscape design today. The student will acquire knowledge on present computer applications for modeling, visualization and presentation. This knowledge of computer tools will provide the student with initial understanding necessary to choose and work with the right tools for the task of landscape design within the Workshop for landscape design in the IX semester.

1. Approach to the problem – Visualization in the modeling process | Practice, CAD tools
2. Basics of computer rendering of a space – Scene elements | Practice. Work with basic tools in 3D
3. Landscape visualization approaches – Overview, categorization and basics | Practice. Tools for landscape visualization
4. Landscape visualisation elements – Data sources, CAD, GIS | Practice. Preparation of input data
5. Basic visualization elements – Terrain | Practice. Terrain modeling tools
6. Basic visualization elements – Vegetation I | Practice. Work with vegetation rendering tools
7. Basic visualization elements – Vegetation II | Practice. Work with vegetation modeling tools
8. Advanced visualization elements – Materials and lighting | Practice. Work with materials and lighting
9. Advanced visualization elements – Water and atmosphere | Practice. Advanced visualization elements
10. Animations – Simulations in space | Practice. Work on scene animation, camera and element animation
11. Animations – Simulations in time | Practice. Work on simulations in time
12. Practical usage of tools and development of new technologies | Practice. Project work
13. Project presentation | Practice. Project work
14. Multimedia presentations | Practice. Work with tools for preparation of multimedia content
15. Interactive presentations | Practice. Improvement of presentations by presentation interactivity

Students will attend classes and continuously work on their own or team project. They will complete it during the semester and eventually present it to the public. Knowledge will be assessed in the discussion during the final presentation.

Requirements

Regular attendance, project work, successfully presented and explained project
 Exam
 Oral presentation and discussion about the project

Compulsory Reading

1. Coursebook (in preparation)

Additional reading

1. Ervin, S.: "Landscape Modeling: Digital Techniques for Landscape Visualisation", McGraw-Hill, 2001, ISBN 0-07-135745-9
2. Lange, E.: "Visualization in Landscape and Environmental Planning: Technology and Applications", Spon Press, ISBN 0415305101, 2005.
3. 3D Nature: "Visual Nature Studio/World Creation Set", user manual, 3D Nature, 2003/2004
4. Cotton, B., Oliver, R.: "Understanding hypermedia – from multimedia to virtual reality, Phaidon Press Ltd, London, 1994, ISBN 0714829080
5. Brail, K.R.: "Planning Support Systems: Integrating Geographic Information Systems, Models, and Visualization Tools", ESRI, 2001, ISBN 1-58948-011-2
6. Vdović, R.: "Digitalni krajolik – elementi vizualizacije", master's thesis, Arhitektonski fakultet, 2000

Offer an overview of possibilities, techniques and landscape visualization elements during group exercises. Master the use of modern program tools by doing tasks which are part of the landscape architecture workshop. Enable students to independently use computers in all modeling stages, from the preparation of technical documentation to visualization and project presentation.

Component (Course) code
 Master course
 Professor
 Term – semester – Compulsory /
 Optional course
 Language of instruction / Other
 languages for consultative teaching
 Type of course unit + additional
 activities
 ECTS credit
 Contact of Professor

Course Description

*** Course Objective

Course Syllabus

*** Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

189219

Contemporary Landscape Architecture

/

Suvremena perivojna arhitektura

Associate Prof. Bojana Bojanić Obad Šćitaroci, Ph.D.

Winter – Optional course

Croatian / English / Italian / German / French

15 lectures/sem

1.0 ECTS

Contact:

Associate Prof. Bojana Bojanić
 Obad Šćitaroci, Ph.D.
bbojanic@arhitekt.hr
 office no.: 426 / 4th floor

A subject of growing interest globally, landscape urbanism is seen as a way to reimagine large cities and aging infrastructures. Landscape urbanism emphasizes the integration of natural, structural, cultural and infrastructural layers of urban space, and suggests a reexamination of current planning models.

...
 The course gives students an insight into the contemporary landscape architecture as an indivisible part of urban planning and architectural design. Through analysis, examples and work on seminar introduces students to the relevant sources and recent examples of landscape architecture. The knowledge gained in this course apply to projects that are made in urban, landscape and architectural workshops.

First step of attractiveness Seeing the void _introduction_ contemplating The second step of attractiveness Multisensory experience – synaesthesia: see sound,hear light,touch smell,lick a void and swallow air Context_Concept_Idea Next to ideas and inspiration the site conditions and constraints stand at the beginning of each project. They form the basis for landscape architects and designers to develop convincing concepts, which are Manifested in formal, spatial structures. Open space is always in-between. Between North and South, today and tomorrow, function and shape. Each design for the urban space and landscape has to deal with the site’s specific character, has to Envision Future Space. Deriving from this new paradigm and a local identity is being defined during the design process. The design is developed within a spatial, material and chronological context. Water_canal and river Water_lake and sea Waterscapes are constructed water features in urban public plazas and parks designed to harness both the hydrologic cycle and the aesthetic qualities of water. They celebrate the role of water in our urban landscapes and allow people to experience the qualities of water through touch, sight and sound. Landscape architecture of the city_re-interpretation of the park Pattern, and relationship, proportion, identity, exchange. The area generally unlimited - limited Space through the dimension sizes, distances, intervals, layers Space through the amorphous form, symmetrical, open, closed Space through moving passage, crossing, speed, direction, way Shaping the idea of space: idea, concept, theory, mental image, imagination - the flow of ideas, the discovery Elements of thinking about space and no_ facts, features and no_, security seals and no_identification, associative elements Ways of thinking about space: reasonable, intuitive, speculative, documentary, negating Results of thinking about space conclusion_conviction, the presumption _attitude, finding _creativity, knowledge_ implementation Contemporary re-interpretation_pavilion _light, sound Pavilions,_small structure, showing the unity of places and events. These structures reveal the attraction, creating atmosphere and transform the light giving the space a character that did not previously have. Tradition transformed into modernity not only content and form, but also design and usability is summed up in a small structure _ pavilion. The rhetoric of contemporary urban landscape The growth of cities: landscape architecture replenishment of cities_planning Although finding a common interest in the landscape, artists, writers, designers, architects and geographers can not accept the common definition, nor agree on its place in the research. Landscape is used differently, but it serves everyone. Landscape Urbanism wants to find out what is happening in the urban landscape. Landscape Urbanism is a concept design and planning in the urban landscape. Spaces_reshaping urban landscape architecture Artform - transform the interest focuses on the deserted area, the obsolete and unproductive spaces and buildings, often undefined and without limits, the place to which the French expression; terrain vague_void, unclear, without content. Areas_ urban landscape design Bridging the Gap Void_emptiness_nonexistence, the lacking of physical and mental content Phenomenological gap can be defined as a place that is charact. by its context and history, which is now outside of urban functions, growth and transformation (such as natural disasters, wars, etc.). Phenomenological gap is an individual event in the city, it builds itself. Functional changes _ altered ways of using the city. Understanding the gap, not only in terms of materiality, but also the location and history are necessary when trying to (re) integration of this type of functionality gaps in the urban space. Physical geographic features such as

Compulsory Reading

1. Girot., Christophe (2016) The Course of Landscape Architecture, Thames&Hudson
2. Hunt, John Dixon (2000) Greater Perfections: The Practice of Garden Theory, Philadelphia: University of Pennsylvania Press
3. Spirm, Anne Whiston (1998) The language of landscape, London: Yale University Press

Additional Reading

- <https://dirt.asla.org/>
<http://www.landazine.com/>
<https://www.toposmagazine.com/>

1. D1 – Creatively incorporate knowledge and methods of technical arts and sciences and social and natural sciences into the process of research, design and construction of an architectural and urban design which meets esthetic and technical requirements of the discipline.
2. D6 – Interpret theoretical concepts which offer universal principles as arguments for contemporary design decisions.
3. D15 – Plan and develop personal competencies by keeping up to date with architectural achievements and by participating in available architectural training programs.
4. Critically assess contemporary landscape architecture projects.
5. Organize knowledge on contemporary landscape architecture.
6. Interpret the characteristics and factors of contemporary landscape architecture identity.
7. Choose the criteria for contemporary landscape architecture designs.
8. Connect the acquired knowledge on contemporary landscape architecture with the design of a landscape, urban and architectural project and/or plan.

Component (Course) code
Master course
Professor
Term – semester – Compulsory /
Optional course
Language of instruction / Other
languages for consultative teaching
Type of course unit + additional
activities
ECTS credit
Contact of Professor

Course Description

...

Course Objective

Course Syllabus

...

Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

mountains, rivers and valleys are generated void in the urban space. City areas_movement and connectivity – promenade, avenue, pedestrian streets, bridges Walkspace_ we move through the space: walkscape_we look at the space City areas_adaptive reuse projects_new use After the abandonment of the facilities, the unique park-like setting offers an historic opportunity for the city. Open spaces and cultural events are an important early catalyst in bringing the city back to life. But the long-term vision is to create an outstanding park for the 21st c. Attractions and bizarre / awards Focus on the tension between the temporary and the permanent, between planned and experiential. Periodically review the relationship between the attempts to create order in the city through long-term plans and the everyday chaos that is the product of that process. The goal is to encourage spaces and situations that function within the state of temporality, space and draw energy from its flexibility.

....

Requirements

Regular attendance and submission of seminar synopsis

Exam

Seminar paper and oral exam

Component (Course) code
 Master course
 Professor
 Term – semester – Compulsory /
 Optional course
 Language of instruction / Other
 languages for consultative teaching
 Type of course unit + additional
 activities
 ECTS credit
 Contact of Professor

Course Description

*** Course Objective

Course Syllabus

*** Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

189221

Tourism in Urban and Physical Planning
 /
Turizam u urbanističkom i prostornom planiranju

Associate Prof. Krunoslav Šmit, Ph.D.

Winter – Optional course

Croatian / English

15 lectures/sem

1.0 ECTS

Contact:
 Associate Prof. Krunoslav Šmit,
 Ph.D.
krunoslav.smit@arhitekt.hr
 office no.: 425 / 4th floor

Dynamic development of tourism and recreation requires a constant process of knowledge acquisition about the changing forms of tourism in the context of environmental protection. The course content encompasses general and specialist knowledge about physical and urban planning as well as tourist area development, tourist facilities and tourist and recreational centres. The course focuses on drawing up urban plans of tourist areas (zones). It encompasses an overview and a comment on spatial standards and starting points in planning – programming, dimensioning and design for tourism and recreation purposes.

...

This course aims to provide advanced in-depth knowledge about urban planning requirements for tourist and recreational purposes. Students acquire knowledge about programming and planning tourist and recreational areas.

1. Introduction
2. Tourism in space
3. Coastal region
4. Mountain region
5. Rural area
6. Urban area
7. Protected nature
8. Urban and physical planning
9. Standards for construction and development
10. Selected topics – coastal region
11. Selected topics – mountain region
12. Selected topics – rural area
13. Selected topics – urban area
14. Selected topics – protected nature

...

Requirements
 Regular attendance and selection of seminar paper topic
 Exam
 Successful presentation of seminar paper

Compulsory Reading

1. Baud-Bovy, M.; Lawson, F. (1998) *Tourism and Recreation, Handbook of Planning and Design*, London: Architectural Press, ISBN 0750630868
 2. Cooper, C.; Hall, C.M. (2008) *Contemporary Tourism: An international approach*, ISBN 978-0-7506-6350-2
 3. Goeldner, C.R.; Brent, R.J.R. (2003.) *Tourism: Principles, Practices, Philosophies*, Pub.: Wiley, John & Sons, Incorporated, ISBN 0471400610
 4. Judd, D.R. (2002) *Infrastructure of Play: Building the Tourist City*, Pub. Sharpe, M.e., ISBN 076560955X
 5. Van Lier, H.N.; Taylor, P. (ed.) (1993) *New Challenges in Recreation and Tourism Planning*, Elsevier Science, ISBN 0444898492

2. Additional Reading

1. Ashworth, G.; Dietvorst, A. (ed.) (2005) *Tourism and Spatial Transformations: Implications for Policy Planning*, Pub. CAB International, ISBN: 0851989810
 2. Gunn, C. A.; Var, T. (2002) *Tourism Planning: Basics, Concepts, Cases*, London: Taylor&Francis, ISBN: 0415932696
 3. Harrison, L.C.; Winston H. (ed.) (1996) *Practicing Responsible Tourism: International Case Studies in Tourism Planning, Policy, and Development*, Pub. Wiley, John & Sons, Incorporated, ISBN: 047112236X
 4. Judd, D.R.; Fainstein, S. (ed.) (1999.) *Tourist City*, Pub. Yale University Press, ISBN: 0300078463
 5. Mieczkowski, Z. (1995) *Environmental Issues of Tourism and Recreation*, Pub. University Press of America, ISBN: 0819199958

1. Independently integrate the knowledge of architecture and urban planning with the process of research, design and construction of an architectural and urban design solution.
2. Research the factors significant for the project and incorporate them into the project program which can be identified in real, everyday context.
3. Identify the basic principles and legal and financial framework for organizing a professional practice and project management.
4. Organize and plan construction and physical planning works, and supervision of the implementation of physical and urban area development plans and projects.
5. Lead an interdisciplinary project and research team of experts, incorporate its conclusions into the development and implementation of the project.
6. Be eligible for admission into the postgraduate artistic and scientific program in the field of architecture and urban planning.
7. Plan and develop personal competencies by keeping up to date with architectural achievements and participating in available architectural training programs.
8. Publicly present socially responsible architecture which promotes knowledge, altruism and skepticism about prejudice, and challenges the conventional.

Component (Course) code
Master course
Professor
Term – semester – Compulsory /
Optional course
Language of instruction / Other
languages for consultative teaching
Type of course unit + additional
activities
ECTS credit
Contact of Professor

Course Description

*** Course Objective

Course Syllabus

*** Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

189223

Traffic Planning and Design Issues

/
Urbanistički aspekti prometa

Prof. Nenad Lipovac, Ph.D.

Winter – Optional course

English

15 lectures/sem

1.0 ECTS

Contact:

Prof. Nenad Lipovac, Ph.D.

nlipovac@arhitekt.hr

office no.: 430 / 4th floor

The Course is dealing with different traffic and transportation planning issues and their correlation within a City. Quality of good planning and positioning of traffic corridors within a city is of a crucial importance and therefore it has to be implemented into the city-planning process. Through the scope and evaluation of different examples from Croatia and other countries students will get to know the “Ups-and-Downs, Good and Bad” in traffic and transportation planning

...
Through this Course, students will deepened their knowledge into the topic of how and why the planning of Traffic and Transportation within a City is of a crucial importance in Urban Planning. It is supposed to help in understanding that every architectural artifact needs appropriate and easy recognizable vehicle/vessel and pedestrian access to be able to use it in full. Through seminar topics, students will face the traffic problems of some sites and suggest their improvements within the scoped Place. The knowledge they gain is supposed to help the students in their student and later-to-come professional work.

Lecture 1: HISTORY OF TRAFFIC AND TRANSPORTATION -part I
Lecture 2: HISTORY OF TRAFFIC AND TRANSPORTATION -part II
Lecture 3: CITY AND THE STREET
Lecture 4: STREET JUNCTIONS
Lecture 5: PARKING WITHIN STREETS
Lecture 6: PARKING OUT OF STREETS
Lecture 7: PUBLIC PARKING AND GARAGES
Lecture 8: DESIGN OF STREET TRAFFIC CALMING ISSUES
Lecture 9: BIKE-LANES
Lecture 10: PUBLIC TRANSPORTATION
Lecture 11: RAIL TRAFFIC SYSTEM WITHIN A CITY
Lecture 12: RIVER, SEA AND AIR TRAFFIC WITHIN A CITY
Lecture 13: CONNECTION OF CITY AND REGIONAL TRAFFIC SYSTEMS
Lecture 14: Discussion
Lecture 15: Seminar and presentation issues

....
Requirements
Lecture attendance on regular basis
Exam
Seminar project

Literature will be announced at the introductory lecture.

Component (Course) code
 Master course
 Professor
 Term – semester – Compulsory /
 Optional course
 Language of instruction / Other
 languages for consultative teaching
 Type of course unit + additional
 activities
 ECTS credit
 Contact of Professor

Course Description

*** Course Objective

Course Syllabus

*** Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

189210

Project Domain
/
Granice projekta

**Assist.Prof. Krunoslav
Ivanišin**

Winter – Optional course

English

15 lectures/sem

1.0 ECTS

Contact:
 Assist. Prof. Krunoslav Ivanišin
 kivanisin@arhitekt.hr
 office no.: 3rd floor

The way of looking, the way of drawing, and the way of building are causally related. PROJECT DOMAIN is drawn with a sequence of (often unnecessarily incomprehensible) notions, paradigms and epistemologies surrounding the architectural practice and the discourse on architecture. Instead of imposing ready-made design schemes, the intention of this course is to proof logically the existence of the substantial and multidirectional relation: TEXT – IMAGE – PROJECT, through the proposed sequence of diachronically contextualized readings: from the tractates and essays on architecture, architectural travelogues, and exemplary critics of architectural projects, to the excerpts from philosophical treatises, literary writings, or scientific papers directly or indirectly related to architecture.

The introductory definition of basic notions around the project, including the project itself, is followed by the elaborate discussion of the relation between nature and architecture in the context of the fundamental ontologies about the purpose of humans in this world. Those relations are architecturally expressed in various notions of place, space and non-place, in the actual facts of horizon and vertical axis, and in the phenomena of natural and artificial growth, and gravitation. The subsequent discussion about the picturesque and the sublime, their origins and their applicability in the architectural practice and the discourse on architecture, leads to the hierarchically substantiated system of specifically architectural perspective on things, dependent on the natural order and the level of the technological sophistication: from the levelled view, the upwards view and the appropriation of the horizon, to the elevated, disinterested view from above, which expands the domain of architecture, from the object scale in the immediate physical context onto the geographic scales of landform and landscape. The logical arguments about the autonomy and about the essential materiality of architecture are derived in the conclusion, following the same scale sequence.

Students are expected to possess a certain experience in architectural practice, at least basic knowledge of history and theory of architecture, and normal ambition to critically reflect upon their future profession. The lectures and seminars are in English. Students are required to read at least two out of the proposed short texts per lecture. Those hardly accessible will be issued as a script.

...
 While delimiting the notions around the architectural project, the aim of the lectures and the parallel seminar is to teach the students how to reflect critically upon those notions and, notwithstanding the evanescent meanings and the associated concepts, how to understand and logically argument their own and other projects in pictorial and verbal ways. While attending the lectures, contributing to the discussions, and analysing and presenting the referential project, the student will start to develop his/ her own catalogue of epistemologies and paradigms, eventually useful in his/ her architectural practice. The knowledge acquired with this course will enhance the general architectural skills of the students. In pragmatic, professional

Syllabus

1. INTRODUCTION

Way of looking, way of drawing, way of building. Idea about the world, idea about architecture. Rational and pseudo-rational (logical and pseudo-logical) reasons and arguments. Propositions and concepts. Verbal and non-verbal thinking; (digital) description and (mental) model. PROJECT; preliminary definition.

2. Seminar I: Catalogues, paradigms, epistemologies. Selection of the referential project for each student to analyze during the semester and represent pictorially and verbally at the end of the course.

3. ELEMENTS: ARCHITECTURE AND NATURE Natural elements, ELEMENTS OF ARCHITECTURE. Natural growth, gravity, Newtonian natural science. Architecture and nature, architecture and technology. The unstable balance. HEARTH. AEDES.

Vitruvius: Second Book; Gottfried Semper: Die vier Elemente der Baukunst (excerpt); Reyner Banham: An Ecology for Architecture; Iñaki Abalos: Thermodynamic Beauty; Krunoslav Ivanišin: Beginnings

4. FORM: PRESENCE AND SUBSTANCE Classical philosophy: the visible world and the world of forms. Monotheistic idea about the universe: natural materialism, limits of human perception. The fifth element. SPACE. Alberti. PERSPECTIVE. Kant: Formalism, disinterested judgement, nonconceptual nature of architecture. TIME-SPACE. Formalism in modern architectural theory. TEMPLUM. CAVE. TENT.

Plato: Metaphor of the Cave (excerpt from Republic); Immanuel Kant: Critique of Aesthetic Judgement (excerpt); Martin Heidegger: The Origin of the Work of Art (excerpt); Siegfried Giedion: Jørn Utzon and the Third Generation

5. PLACE [SPACE] NON-PLACE Nomadic vs. sedentary culture; Polytheistic and Pantheistic vs. Monotheistic idea about nature. CONCEPT and KONTEXT. Spirit of place. Spirit of time. Scale and size. ORIGO. FORREST. MOUNTAIN. DESERT. Christian Norberg Schulz: Natural Place; Rem Koolhaas: Bigness of the Problem of Large; Michael Jacob: On Mountains

6. Seminar II: Image and project. Pictorial representation of the referential project.

7. SENTIMENTAL JOURNEYS Exceptional and ordinary; Permanent and transient. Journeys and discoveries. Erfindung vs. Empfindung. LANDSCAPE. RUIN. MACHINE. Le Corbusier: Voyage d'Orient (excerpt); Aldo van Eyck: Dogon; Colin Rowe and John Hejduk: Lockhart, Texas; Alison

Smithson: AS in DS (excerpt); Wim Wenders: To Shoot Pictures

8. THE PICTURESQUE Invention of the picturesque: gardening techniques, landscape vs. architecture. Infrastructural corridors and agricultural patterns. COLLAGE. Geological and archaeological layers. Geomorphic and cultural time. GARDEN. ARCHAEOLOGICAL TELL. Zvonimir Radić: Umjetnost oblikovanja; Hans Hollein: Alles ist Architektur; Robert Smithson: A tour of the Monuments of Passaic, New Jersey; Strata. A Geophotographic Fiction

9. THE SUBLIME Philosophical substance: Burke and Kant. Mathematically and dynamically sublime. Naturally and technologically

Compulsory Reading

- Abalos, Iñaki. "Thermodynamic Beauty" Circo (Madrid), 157 (2008); also in Mateo, Josep Lluís and Ivanišin, Krunoslav (eds.). After Crisis. Baden: Lars Müller, Zürich: ETH, 2011: 148-153

- Allen, Stan. "Field Condition." In Stan Allen Architects. Points + Lines. Princeton: Princeton Architectural Press, 1999: 92-102

- Banham, Reyner. "An Ecology for Architecture." In Banham, Reyner. Los Angeles. The Architecture of Four Ecologies. London: Penguin, 1971: 235-245

- Blake, Peter. Le Corbusier, Architecture and Form. London: Penguin, 1964

- Borges, Jorge Luis. Fervor de Buenos Aires: Arrabal (1922). www.literatura.us, accessed 27 September 2015

- Braudel, Fernand. La Méditerranée et le monde méditerranéen à l'époque de Philippe II; Sredozemlje i sredozemni svijet u doba Filipa II. 1. svezak. Zagreb: Antibargbarus, 1997: 25-37; 131-139

- van Eyck, Aldo. "Dogon. Mand – Huis – Dorp – Wereld (1963) ". Forum, 17 no.4 (1967): 30-31

- Flaker, Aleksandar. "Star Like Cities, American Actually," Čovjek i prostor (Zagreb), 632-633 (2007): 3-7

- Gregotti, Vittorio. "La forma del territorio; The Shape of Landscape." Edilizia Moderna (Milano), 87-88 (1965): 149-152

- Giedion, Siegfried. "Jørn Utzon and the Third Generation." Zodiac (Milano), 14 (1965): 36-47

- Heidegger, Martin: The Origin of the Work of Art. translated by Roger Berkowic and Philippe Nonnet, draft. Academia.edu, accessed 10 October 2013. Chapter Work and Truth: 24-40

- Hollein, Hans. "Alles ist Architektur." Bau (Wien), 23:1/2 (1968)

- Ivanišin, Krunoslav. "Beginnings." In Mateo, Josep Lluís; Sauter, Florian. Earth, Water, Air, Fire. New York: Actar, 2014: 24-28. - Jacob, Michael. "On Mountains: Scalable and Unscalable." In Allen, Stan & McQuade, Marc (eds.). Landform Building. Baden: Lars Müller, 2011: 136-164

- Kant, Immanuel. Critique of Judgement, part 1: Critique of Aesthetic Judgement (1790), trans. James Creed Meredith. eBooks@Adelaide. University of Adelaide, accessed 12 June 2012

- Koolhaas, Rem. "Bigness of the Problem of Large." Domus (Milano), 764 (1994): 89-90

- Le Corbusier: Journey to the East (1966), trans. Ivan Žaknić. Cambridge Mass.: MIT Press, 1987

- Combine the concepts, examples and knowledge theories which surround the practice of architecture and the discussion on architecture into a meaningful whole, evaluate them independently and meaningfully identify the relationships among them – organize one's own perspective on the essence of things and occurrences in the physical environment depending on the natural order and the place of architecture in it – understand the essential interconnection of the way of observing, way of drawing and way of constructing through the interconnection of the text, the picture and the project in the process of creating an architectural work. – Esthetically assess past, contemporary and one's own architectural work free from the ideas, meanings and concepts which are assigned to them according to a program or a convention – Expand one's own horizons thus expanding the limits of the discipline and the construction style through the interconnection of the text, the picture and the project in the process of creating an architectural work.

Course Description

*** Course Objective

terms, it will also help them to pictorially represent and verbalize their projects, expanding thus the limits of the architectural project within the real context of its ever decreasing circumference.

Course Syllabus

*** Methods and criteria of evaluation

sublime. Detached point of vision. Architectural limits of the sublime. WINDOW. TELESCOPE. MICROSCOPE. John Ruskin: The Lamp of Power; Ayn Rand: The Fountainhead (excerpt); Slavoj Žižek: Architectural Parallax (excerpt)

10. HORIZONTAL WORLD View. Strategic observation. Cartesian coordinates. ISLAMIC MINIATURE. AXONOMETRIC PROJECTION. MILITARY PERSPECTIVE. Appropriation of the horizon. Calligraphy, art of weaving, art of building. MAP. CARPET. AXIS MUNDI. Curzio Malaparte: La pelle (excerpt); Orhan Pamuk: Painting and Time; Stan Allen: Field Condition; Le Corbusier: Mise au point (excerpt)

11. A VIEW FROM ABOVE: TERRITORIAL SCOPE OF ARCHITECTURE Bergson and Braudel: Longue durée. Geopolitical perspective. Architectural criteria extended on the geographic scale.

LANDFORM. PLATFORM. BUNKER. Jørn Utzon: Platforms and Plateaus; Vittorio Gregotti: La forma del territorio; Jorge Luis Borges: Arrival; Fernand Braudel: La Méditerranée et le monde méditerranéen à l'époque de Philippe II (excerpt); Aleksandar Flaker: Star-like Cities

12. Seminar III: Text and project. Preliminary presentation of the images. Verbalization of the referential project.

13. MATERIAL CONSCIOUSNESS Work. Material. Materialism. Material presence. Sensual reality. Materiality of architecture. URBAN PLAN. Richard Sennett: Material Consciousness; Juhani Palasmaa: Hapticity and Time; Peter Blake: Le Corbusier, Architecture and Form (excerpt)

14. AUTONOMY OF ARCHITECTURE Architects and projects.

Mies van der Rohe: Notes for a lecture, June 19th 1924; Aldo Rossi: Autonomia dei fatti urbani; Nikola Dobrović: Dubrovnik as a Testimony to Urban Formation

15. Seminar IV: Final presentation by students: TEXT – IMAGE – PROJECT.

....

Assessment

SEMINAR: In parallel to the lectures, students will analyse, verbalise and pictorially represent a referential built or non-built project, in relation to some of the paradigms listed in the syllabus. By the end of the course, each student will present the project with one image and one short, 500 to 1000 words text.

Requirements

Regular attendance of the lectures and the seminars, participation in the discussions.

Exam

Presentation of the seminar work (TEXT – IMAGE – PROJECT) handed in the digital and the printed medium.

Compulsory and Additional Reading

Course Learning Outcomes

- Mies van der Rohe, Ludwig. "Notes for a lecture, June 19th 1924." In Neumeyer, Fritz. The Artless World: Mies van der Rohe on the Building Art, trans. Mark Jazobrek. Cambridge Mass.: MIT Press, 1991: 249-250

- Malaparte, Curzio: La pelle (excerpt)

- Norberg Schulz, Christian. Genius Loci, chapter II: Natural Place (1979). New York: Rizzoli, 1980: 23-49

- Le Corbusier. Mise au point (excerpt)

- Pamuk, Orhan. My Name Is Red, chapter 13: Painting and Time (1998). London: Faber, 2001: 8391

- Palasmaa, Juhani. "Hapticity and Time" Architectural Review (London), May (2000): 78-84.

- Plato. Metaphor of the Cave. excerpt from Republic Book VII (360 BC) . classics.mit.edu, accessed 25 September 2015

- Radić, Zvonimir. "Umjetnost oblikovanja." Arhitektura (Zagreb), 6 (1959): 41-69

- Rand, Ayn: The Fountainhead (1943). New York: Signet, 1996: the first two and the last two paragraphs

- Rowe, Colin & Hejduk, John. "Lockhart, Texas." Architectural Record, vol.121, no.3 (1957): 201206

- Ruskin, John. The Seven Lamps of Architecture, The Lamp of Power (1849). In Evans, Joan. John Ruskin, The Lamp of Beauty: Writings on Art. London: Phaidon, 1995: 208-213

- Semper, Gottfried. Die vier Elemente der Baukunst. Braunschweig: Friedrich Vieweg und Sohn, 1851: 50-57

- Sennett, Richard. The Craftsmen, part I, chapter IV: Material Consciousness. London: Allen Lane, 2008: 119-146

- Smithson, Alison. AS in DS, Aspect 4: The Graphics of Movement (1983). Baden: Lars Müller, 2001: 91-111

- Smithson, Robert. A tour of the Monuments of Passaic, New Jersey; Strata, A Geophotographic Fiction (1967). In Flam, Jack (ed.). Robert Smithson. The Collected Writings. Berkeley and Los Angeles: University of California Press, 1996: 68-77

- Utzon, Jørn. "Platforms and Plateaus." Zodiac (Milano), 10 (1963): 110-115

- Vitruvius. De Architectura Libri X, Book II, Chapter I. English translation, www.vitruvius.be, accessed 15 January 2014

- Wenders, Wim. "To Shoot Pictures." In Wenders, Wim. Once. München: Schirmer-Mosel; New York: D.A.P., 2001: 7-15

Component (Course) code
Master course
Professor
Term – semester – Compulsory /
Optional course
Language of instruction / Other
languages for consultative teaching
Type of course unit + additional
activities
ECTS credit
Contact of Professor

Course Description

Course Objective

Course Syllabus

Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

Additional Reading

- Abalos, Iñaki. Atlas pintoresco, Vol. 1: El observatorio. Barcelona: Gustavo Gili, 2005
- Abalos, Iñaki. Atlas pintoresco, Vol. 2: Los viajes. Barcelona: Gustavo Gili, 2008
- Allen, Stan & McQuade, Marc (eds.). Landform Building. Baden: Lars Müller, 2011
- Evans, Robin. Translations from Drawing to Building (1986). In Translations from Drawing to Building and Other Essays. London: Architectural Association, 1997: 153-193
- Gregotti, Vittorio. Il territorio dell'architettura. Milano: Feltrinelli, 1966
- Ivanišin, Krunoslav. "Place [Space] Non-Place." SAJ, 2 (2014): 210-227
- Ivanišin, Krunoslav. Scales of the Sublime etc. Doctoral thesis. Ljubljana: University of Ljubljana, Faculty of Architecture, 2014. - Mateo, Josep Lluis; Sauter, Florian. Earth, Water, Air, Fire. New York: Actar, 2014
- Mitrović, Branko. Philosophy for Architects. New York: Princeton Architectural Press, 2011

Component (Course) code
 Master course
 Professor
 Term – semester – Compulsory /
 Optional course
 Language of instruction / Other
 languages for consultative teaching
 Type of course unit + additional
 activities
 ECTS credit
 Contact of Professor

Course Description

*** Course Objective

Course Syllabus

*** Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

79193

High-tech Architecture

/
Visokotehnološka arhitektura

Prof. Ljubomir Mišćević

Winter – Optional course

Croatian / English

15 lectures/sem

1.0 ECTS

The course focuses on a comprehensive definition of concepts, historical development of the topic, contemporary development of high technologies relevant to architectural theory and practice, its social context and implications. Integration of architectural and urban planning concepts and high-tech materials and systems. Recent Croatian and world projects and realizations are presented and analyzed. Emphasis is put on architectural concept and design in the context of investments, building technology and sustainability

...

Acquisition of advanced knowledge about new materials, systems and structures making the concept, design and construction of high-technology architecture possible. The continuous development of architectural concepts and building technology in the context of rapid developments in the world of inventions and their applications requires a constant effort in keeping up to date with the latest achievements in this field.

1. BASIC DEFINITION OF CONCEPTS Technique, production, technology, industrial and information age, high-tech
2. HISTORICAL DEVELOPMENT OF NEW AGE HIGH TECHNOLOGY Global situation and development strategies. Conventional and renewable energy sources and their impact on environmental protection and improvement, sustainable development approach
3. ECO-TECH and ENVIRONMENT Eco-friendly concept, use of natural materials, renewable sources of energy, ecological preconditions relevant to architectural and urban planning design and physical planning, destruction, recycling materials architecture
4. HISTORICAL DEVELOPMENT AND MODERN TECHNOLOGY Using solar energy (active and passive), technology, contemporary achievements
5. FROM CRYSTAL PALACE TO CRYSTAL CATHEDRAL Joseph Paxton - Philip Johnson
6. FUTURISTIC ARCHITECTURE From Boullée and Ledoux to Leonidov and Sant'Elia, futuristic architecture of the second half of 20th century, contemporary futuristic concepts (Norman Foster, Toyo Ito, Future Systems)
7. CONSTRUCTIVISM, STRUCTURALISM, HIGH-TECH Theoretical impacts, aesthetics, visual arts
8. BIOCLIMATIC HIGH-TECH Microclimate, geographical features, insolation, topographic and other natural and man-made architectural, construction and installation systems
9. EN-TECH ENERGY AND HIGH-TECH Power-supply system and high-tech requirements, definitions, development, indicators, Croatian and EU standards, energy standard of a *passive house*, high-technology and high energy-efficiency, global influences and effects
10. HIGH-TECH MATERIALS AND SYSTEMS Special types; geosolar, self-sufficient, "intelligent" house
11. HIGH-TECH HIGH-RISE BUILDINGS skyscrapers, projects, realizations; Croatia, Europe, the world
12. TRAFFIC AND POWER-SUPPLY FACILITIES bridges, viaducts, tunnels, roads, dams, power plants, impact on the environment, high-tech prevention of harmful influences
13. TIMBER HIGH-TECH ARCHITECTURE Natural materials and high technology, timber structures, systems and design, eco-friendly approach
14. EXTREME ARCHITECTURE Recent concepts, extreme high-tech concepts, projects and realizations
15. VIRTUAL HIGH-TECH Computer simulations, virtual architecture and environment

Requirements
 Regular attendance
 Exam
 Seminar paper

Compulsory Reading

1. Low-Tech Light-Tech High-Tech, K.Daniels, Birkhäuser, 2000
2. Xtreme Houses, C.Smith, S.Topham, Prestel, 2002
3. Eco-Tech, Sustainable Architecture and High Technology, C.Slessor, Thames and Hudson, London, 1997
4. Building a New Millennium, P.Jodido, Taschen, 1999
5. Technologiques, AA, Paris, 1985

Additional Reading

1. ECO-TEC, Architecture of the In-Between, A.Marras, Princeton architectural Press, 1999
2. EXPO '98 Architecture, L.Trigueiros, C.Sat, C.Oliveira, Blau. Lisboa. 1998
3. S, M, L, XL, O.M.A., R.Koolhaas, B.Mau, 010 Publishers, Rotterdam, 1995
4. Tecnologia, L'Arca Plus, Milano, 1993.
- 5 Visions for the Future, Architectural Design, Vol. 63 No 7/8, London, 1993
6. Tensile Structures, Architectural Design, Vol. 63 No 7/8, London, 1995

In this course the student will acquire necessary advanced knowledge of recent materials, systems and structures which enable the creation of the concept, design and the realization of high-tech architecture. Continuous development of architectural thinking and construction technologies in the growing number of discoveries, their use and monitoring presents a challenge to the creative reaction. Therefore it is necessary to keep up to date and be acquainted with high tech.

Contact:

Prof. Ljubomir Mišćević
ljubomir.miscevic@arhitekt.hr
 office no.: 327 / 3rd floor

Component (Course) code
 Master course
 Professor
 Term – semester – Compulsory /
 Optional course
 Language of instruction / Other
 languages for consultative teaching
 Type of course unit + additional
 activities
 ECTS credit
 Contact of Professor

Course Description

*** Course Objective

Course Syllabus

*** Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

135433

Buildings for Work
/
Zgrade za rad

Prof. Vesna Mikić, Ph.D.

Winter – Optional course

Croatian / English

15 lectures/sem

1.0 ECTS

Contact:
 Prof. Vesna Mikić, Ph.D.
vesna.mikic@arhitekt.hr
 office no.: Zavod za arhitekturu /
 Institute for Arch.

A specific body of knowledge and skills in architecture of multipurpose business buildings is presented. It explores different influences, ranging from technical to social, which are manifested in architectural artefacts. In the context of climate changes, economic crises and social transformations, the course focuses on the relationships between technology, design and society which increasingly condition the métier of the architectural idiom of business buildings.

...
 The course draws upon recent theories which describe from various perspectives the influences exerted on the architecture of multipurpose buildings. The influences of the new knowledge are described as “third industrial revolution”, “second modern age”, “information society” or “knowledge society” where surplus value is not generated by capital but rather by productivity and innovation. Both these notions, productivity and innovation, imply the application of knowledge on work activities. The work has changed: it has become more complex and it points to an ever growing need for a swift and comprehensive exchange of knowledge via information and communication technologies, especially via spatial reflections of these processes. The organisation of knowledge entails a preliminary structural analysis of the notion of work and consequently of the notion of the work-intended buildings. The third whole explains the structure and the method of designing such spatial environments. The course specifically focuses on the issues of identity and branding of the new manufacturing centres, on the new work environments, redeveloping of industrial areas and on the matters of productivity and innovation in work environment.

1. INTRODUCTORY LECTURE
2. THEORETICAL SETTINGS OF SUSTAINABILITY IN BUSINESS BUILDING DESIGNS
3. NEW TYPOLOGY OF WORK ENVIRONMENT
4. LIFE CYCLES AND SUSTAINABILITY OF PUBLIC BUILDINGS
5. URBAN LANDSCAPE IN PUBLIC-PURPOSE PROJECTS
6. ARCHITECTURE OF MODERN AIRPORTS
7. COMMUNICATION PLATFORMS OF CORPORATIONS
8. POSTINDUSTRIAL LANDSCAPE OF BUSINESS BUILDINGS ARCHITECTURE
9. ARCHITECTURAL TRENDS IN THE 3rd MILLENIUM WORLD FAIRS
10. ARCHITECTURAL COMPOUNDS OF MODERN FAIRS
11. CAMPUSES
12. BUSINESS AND THEME PARKS IN INDUSTRIAL AND LEISURE ZONES
13. DOCKLANDS AND WATERFRONT DEVELOPEMENT
14. MODERN METHODOLOGICAL EXPERIENCES IN DESIGNING COMPLEX PUBLIC-PURPOSE BUILDINGS
15. ANTICIPATING TRENDS IN MULTIPURPOSE BUSINESS BUILDINGS

....
 Assessment
 Seminar paper

 Exam
 Written and oral

Compulsory Reading

1. K. Moe, R.E.Smith: Building Systems, Design technology and society, New York, 2012
2. C. Van Uffelen: Offices, Braun publishing AG, 2010
3. J.Adam, K. Hausmann, F. Juttner: Industrial Buildings, Basel, 2004
4. R. Hascher, S. Jeska, B. Klauck: Office buildings. Birkhauser, Basel, 2002
5. F. Duffy, L. Hatton: Architectural Knowledge, New York, 1998
6. V. Neidhardt: Čovjek u prostoru, Školska knjiga, Zagreb, 1997
7. Nikolaus Pevsner: A History of Building Types, Thames and Hudson Ltd, London, 1976

Additional Reading

1. Charles Waldheim: Notes Toward a History of Agrarian Urbanism, essay
2. Richard Florida: The Rise of the Creative Class. And How It's Transforming Work, Leisure and Everyday Life, 2002. Basic Books
3. Who's Your City?, Basic Books, Random House, 2008
4. Jared Diamond: Why do societies collapse?

1. Creatively apply the knowledge and methods from the field of technical arts and sciences as well as social and natural sciences to an architectural and urban design solution which meets the esthetic and technical requirements of the discipline.
2. Choose information and criteria important for the development of an architectural and urban planning project.
3. Critically assess a designed or realized architectural and urban planning schematic design.
4. Demonstrate knowledge of basic typologies, language, principles and theoretical concepts which articulate and express an architectural and urban planning idea.
5. Identify universal principles in examples from the history of architecture which serve as arguments for contemporary decisions of architects.
6. The student who successfully completes this course will be able to:
 - Interpret the knowledge on the architecture of complex business-purpose buildings.
 - Explain contemporary principles of architects based on the acquired knowledge related to the course.
 - Combine specific acquired knowledge necessary to design complex business-purpose buildings.
 - Interpret universal concepts of business architecture for complex purposes and make architectural decisions accordingly.

Component (Course) code
 Master course
 Professor
 Term – semester – Compulsory /
 Optional course
 Language of instruction / Other
 languages for consultative teaching
 Type of course unit + additional
 activities
 ECTS credit
 Contact of Professor

Course Description

*** Course Objective

Course Syllabus

*** Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

168965

History of making American cities by the end of 19th century
 /
Američki grad do kraja 19. stoljeća

Prof. Nenad Lipovac, Ph.D.

Summer – Optional course

English

15 lectures/sem

1.0 ECTS

The aim of the course is to bring the image of planning and creation of Americas cities from prehistory until the end of the 19th century ...
 The topic of this Course is a research of history of making American cities (starting with prehistoric ones and ending by the cities at the end of 19th century) taking into account the area of North and Mesoamerica. North American continent and the settlement development issues today are rarely experienced as something of a great cultural and scientific value. The most common consideration of the American settlement is through the vision of the grid-system introduced by the end of 18th century. Even today, very few scholars would have the knowledge of the settlements built by the Native Americans (long before the Europeans arrived). These settlements represent real built masterpieces, planned according to the knowledge gained through observing the astronomical events. First contemporary cities were planned and built according to the several very important, and so different from European counterparts, legislative acts that served as the most influenced guides in creating American cities.

1. Peopling of North American Continent
2. Prehistoric Settlements of the Southeast (part I)
3. Prehistoric Settlements of the Southeast (part II)
4. Prehistoric Settlements of the Southwest - Pueblos (part I)
5. Prehistoric Settlements of the Southwest - Pueblos (part II)
6. Maya and Aztec Settlements (part I)
7. Maya and Aztec Settlements (part II)
8. Inkas Settlements
9. 16th Century European Settlements and their Influence upon American Settlements
10. European Settlers and their first Settlements
11. Settlements by the End of 18th Century
12. First Legislation Act for Settlement Planning
13. Settlement/City History and Development Examples (part I)
14. Settlement/City History and Development Examples (part II)
15. Discussion About Seminar

....

Exam
Seminar paper and its presentation

Compulsory Reading
 1. Course notes
 2. Reading selection located in the professor's office (approximately 40 books)

Additional Reading
 1. Websites about the chosen topic

Development of general and specific competencies.
 Introduction of students to the principles and conditions of "planning" prehistoric settlements in Central and North America and the fundamental principles underlying the creation of the city after the "discovery" of America.
 Students will also acquire basic knowledge about legislative documents which became the basis for the creation of the modern city in this part of the world in mid-18th century.

Contact:
 Prof. Nenad Lipovac, Ph.D.
nlipovac@arhitekt.hr
 office no.: 430 / 4th floor

Component (Course) code
 Master course
 Professor
 Term – semester – Compulsory /
 Optional course
 Language of instruction / Other
 languages for consultative teaching
 Type of course unit + additional
 activities
 ECTS credit
 Contact of Professor

Course Description

*** Course Objective

Course Syllabus

*** Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

<p>81957</p> <p>Architectonics of Light / Arhitektonika svjetla</p> <p>Assist. Prof. Neda Cilinger</p> <p>Summer – Optional course</p> <p>Croatian / English</p> <p>15 lectures/sem</p> <p>1.0 ECTS</p> <p>Contact: Assist. Prof. Neda Cilinger neda.cilinger@arhitekt.hr office no.: 412 / 4th floor</p>	<p>The course aims to help students understand the role of light in architecture and teach them how to incorporate it in their projects in the context of functional disposition and design. The role of light needs to be viewed in its relationship with the form, colour, texture, atmosphere and psychological requirements.</p> <p>...</p> <p>The aim is to provide students with advanced knowledge and skills in the design of light in architecture. Defining the concept of light, parameters and criteria for a high-quality design through a synergy of perception and creativity.</p>	<ol style="list-style-type: none"> 1. Introduction – what is Light? 2. Senses – perception of space – creation with light 3. Emotion and Light – concept structure: sense of sight-perception- feeling-emotion 4. Colour and Light 5. Colours of Light 6. Light – Shadow 7. Texture and Light 8. Atmosphere of space – concept structure 9. The concept of light in philosophy and art 10. Daylight 11. Artificial light 12. Technical light elements in design and luminaires 13. Criteria for a high-quality design 1; analysis – creativity – responsibility 14. Criteria for a high-quality design 2; comfort-health-better world 15. Guest – Ranko Skansi, M.Sc., field trip, laboratory of light <p>....</p> <p>Requirements Regular attendance, seminar project, field trip/ laboratory of light Exam Theoretical seminar paper or actual project assignment</p>	<p>Compulsory Reading</p> <ol style="list-style-type: none"> 1. Derek Phillips: Lighting in architectural design 2. Carlo Scarpa 3. Louis Barragan <p>Additional Reading</p> <ol style="list-style-type: none"> 1. J.W.Goethe: Učenje o bojama 2. Juhani Pallasmaa: The eyes of the skin 3. Arnold Gallardo: 3d lighting:history, concepts and techniques 4. www.licht.de Good lighting for museums, galleries and exhibitions 5. www.licht.de Good lighting for hotels and restaurants 6. www.licht.de Good lighting for schools 7. www.licht.de Good lighting for offices and office buildings 8. www.licht.de Good lighting for industry and trade 9. www.licht.de Good lighting for sales and presentation 10. www.licht.de; Good lighting for sports and leisure 11. www.licht.de; Good lighting for health care premises 12. www.licht.de Home lighting 13. www.licht.de; Lighting with artificial light 14. www.licht.de; LED 	<p>Development of general and specific competencies – knowledge and skills.</p> <p>Connection of the knowledge of design basics with the knowledge and skills of designing and shaping a space with light.</p> <p>Defining the concept of light, parameters and criteria for a high-quality design through a synergy of perception and creativity.</p>
--	---	--	---	--

Component (Course) code
 Master course
 Professor
 Term – semester – Compulsory /
 Optional course
 Language of instruction / Other
 languages for consultative teaching
 Type of course unit + additional
 activities
 ECTS credit
 Contact of Professor

Course Description

...
Course Objective

Course Syllabus

...
Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

<p> 20712 Drawing and Architectural Graphics / Crtanje i arhitektonska grafika Prof. Renata Waldgoni Summer – Optional course Croatian / English 15 lectures/sem 1.0 ECTS Contact: Prof. Renata Waldgoni renata.waldgoni@arhitekt.hr office no.: 312 / 3rd floor </p>	<p> Linking cultural aspect with drawing skills. Strong bond between creation and expression (representation). ... Knowledge consolidation. Supporting individual visual expression. </p>	<p> 1. Historical development, general information, significance, illusion, understanding, personality 2. Spaces in various scales (from urbanism to interior design, figure) 3. Two-dimensional representations of a horizontal plane 4. Two-dimensional representations of a vertical plane 5.-6. Three-dimensional representations 7.-9. Different approaches to a representation depending on art discipline 10.-12. Architect's expression and representation technique 13.-15. Architectural work in the environment and its representation (sketch on field trips, a study) ... Home tasks with corrections before submission every other week. A notebook is obligatory where students take notes of lectures, tasks, their personal observations, texts, drawings, reproductions. A sketchbook (no.3) for field trip drawings and sketches and drawing studies at home. Assessment Attendance of lectures "Architects on architects' drawings". Staying informed about cultural issues, applying analytical thinking. Mandatory notebook for making lecture notes and personal observations (texts and drawings). Requirements Regular attendance, regular face-to-face consultations Exam Oral exam in the form of a discussion and submission of a completed booklet/course assignment </p>	<p> Compulsory Reading 1. Rudolf Arnheim: Umetnost I vizuelno opažanje, Univerzitet umetnosti u Beogradu, Beograd, 1981 2. E.H.Gombrich: Umetnost I iluzija, Nolit, Beograd, 1984 3. Juhani Pallasmaa: The thinking hand, Wiley&Sons Ltd., 2009 4. Nikola Tanhofer: O boji:na filmu I srodnim medijima, Novi Liber, Zagreb, 2000 Additional Reading 1. C.G.Jung: Čovjek i njegovi simboli, Mladost, Zagreb, 1974 2. Gillo Dorfles: Kič, Golden marketing, Zagreb, 1997 3. H.W.Janson: Povijest umjetnosti (hrvatsko prošireno izdanje), Stanek, Varaždin, 2003 </p>	<p> The student will be able to assess graphic representations and images objectively. The student will be able to organize the research of past/recent representations of space. The student will be able to independently create the concept of a visual and graphic solution for a booklet/presentation, and design and realize it following a highly complex course assignment. </p>
--	---	---	--	--

Component (Course) code
 Master course
 Professor
 Term – semester – Compulsory /
 Optional course
 Language of instruction / Other
 languages for consultative teaching
 Type of course unit + additional
 activities
 ECTS credit
 Contact of Professor

Course Description

Course Objective

Course Syllabus

Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

<p>81955</p> <p>English for Architecture 3 /</p> <p>Engleski jezik za arhitekturu III</p> <p>Senior lecturer Neda Borić, Ph.D.</p> <p>Summer – Optional course</p> <p>English</p> <p>15 lectures/sem</p> <p>1.0 ECTS</p> <p>Contact: Senior lecturer Neda Borić, Ph.D. nboric@arhitekt.hr office no.: 306 / 3rd floor</p>	<p>The course focuses on the acquisition of specialist terminology, developing reading skills, improving knowledge of general English vocabulary, developing written and oral communication skills, presentation skills, business communication skills in architecture. Course materials are based on a selection of authentic texts from various sources with architecture and urban planning-based topics. Topics: city - a human habitat, famous architects, sustainable architecture, business communication in architecture</p> <p>...</p> <p>Students are expected to improve their oral and written competence in English for architecture in order to be able to meet the requirements of their academic education and future professional work. Knowledge and skills acquired should help them in their future professional careers and allow them to integrate more successfully into the international business, professional and scientific community within the architectural profession.</p> <p>Knowledge and skills: developing reading skills, developing oral competence, improving knowledge of specialist vocabulary, presentation skills, business communication skills.</p>	<p>Syllabus</p> <ol style="list-style-type: none"> 1. INTRODUCTION 2. CITY - A HUMAN HABITAT (part I) 3. CITY - A HUMAN HABITAT (part II) 4. SUSTAINABLE ARCHITECTURE (part I) 5. SUSTAINABLE ARCHITECTURE (part II) 6. FRANK GEHRY - GUGGENHEIM MUSEUM, Bilbao (part I) 7. FRANK GEHRY (part II) 8. LE CORBUSIER (part I) 9. LE CORBUSIER (part II) 10. BUSINESS COMMUNICATION in architecture <p>The remaining planned classes will cover the topics listed above flexibly, depending on their scope and complexity, though additional texts or presentations of specialist topics chosen by the students. The course requires considerable independent work.</p> <p>...</p> <p>Requirements Regular attendance</p> <p>Assessment Exam (seminar paper and oral presentation)</p>	<p>Compulsory Reading University textbook: - Borić, N. (2007). English for Architecture and Urban Planning. Golden marketing, Tehnička knjiga.Zagreb. - Additional shorter texts from English architectural trade journals - General and specialized dictionaries</p> <p>Additional Reading - Selected by students, especially for the seminar paper</p>	<ol style="list-style-type: none"> 1. The student will be able to understand and analyze more complex specialist texts and properly interpret their content both in speech and writing. 2. The student will develop the skill of presenting specialist topics. 3. The student will be able to participate in more complex professional debates by presenting their arguments and critical thinking. 4. The student will master specialist terminology and language structures relevant for architecture in order to communicate fluently in speech and writing. 5. The student will master the skill of business communication related to the profession (writing business letters, applications etc., expressing various actions in business communication (application, request etc.) 6. The student will be able to describe their work, projects, buildings, actions, occurrences, processes etc. in speech and writing. 7. The student will be able to assess various areas and problems in the profession and discuss them in speech or writing.
--	--	--	--	---

Component (Course) code
 Master course
 Professor
 Term – semester – Compulsory /
 Optional course
 Language of instruction / Other
 languages for consultative teaching
 Type of course unit + additional
 activities
 ECTS credit
 Contact of Professor

Course Description

*** Course Objective

Course Syllabus

*** Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

<p>20770</p> <p>Geometry in Architecture / Geometrija u graditeljstvu</p> <p>Assist. Prof. Marija Šimić Horvath, Ph.D.</p> <p>Summer – Optional course</p> <p>English</p> <p>15 lectures/sem</p> <p>1.0 ECTS</p> <p>Contact: Assist. Prof. Marija Šimić Horvath, Ph.D. marija.simic@arhitekt.hr office no.: 65 / ground floor</p>	<p>The course covers geometry – based construction- graphic procedures by which objects in space and their relations are depicted in a plane, either by classical techniques or supported by CAD software. Special emphasis is placed upon studying architectural examples. This is architectural journey through geometry. Main topics are: axonometric perspective, perspective with inclined axis of view, architectural photogrametry, reflections in perspective, selected types of surfaces frequently used in architecture.</p> <p>...</p> <p>Examples based on architectural practice challenge students to ask "geometric questions" which are far away from material studied in required course Descriptive geometry and perspective. In that sense the course covers thesis suitable for application later in architectural practice.</p> <p>After the course is completed the student is able to measure in perspective with horizontal axis of view and represent architectural objects by the method of perspective with inclined axis of view. He can resolve different types of problems concerning architectural photogrametry. Further on, they are introduced to the application of rotating surface in building construction.</p>	<ol style="list-style-type: none"> 1. Axonometric perspective with horizontal axis of view 2. Measuring in perspective with horizontal axis of view 3. Perspective with inclined axis of view (bird's eye and worm's eye view) 4. Measuring in perspective with inclined axis of view 5. Architectural photogrametry – in general 6. Reconstruction of facades based on the photo taken from bird's eye and worm's eye view 7. Reconstruction of the interior based on the photo 8. Examples of facade reconstructions based on the photo taken from the horizontal axis of view 9. Reflections in perspective 10. Reflecting surface vertical and parallel to picture plane 11. Reflecting surface vertical and inclined to picture plane 12. Rotating surfaces (ellipsoid, paraboloid, hyperboloid of one nappe, hyperboloid of two nappe, torus) 13. Rotating surfaces (application in building construction, water – tower R. Morandi, Livorno, Italy) 14. Ruled surfaces – formation, categorization (chatedral Sacre-Coeur / Alžir, P. Herbe, J. le Couteu, R. Sarger) 15. Construction analysis of hyperbolic paraboloid exemplified by built structures (HP surface at pavilion of Zagreb fair) <p>...</p> <p>Assessment Lecturing, home made drawing Requirements Regular attendance, project assigment handed in Exam Project assignment handed in, oral explanation of the project assignment</p>	<p>Reading</p> <ol style="list-style-type: none"> 1. Pottman H., Asperl A., Hofer M., Kilian A.. (2007). Architectural Geometry. Bentley Institute Press 2. Szivoczka V. (2007). Descriptive geometry. Self-published 3. web: https://arhitektzg.sharepoint.com/II/GUG/ 4. Kurilj P., Sudeta N., Šimić M. (2005). Perspektiva. Golden marketing-Tehnička knjiga, Zagreb 	<ol style="list-style-type: none"> 1. to recognize the perspective with horizontal axis of view and the perspective with inclined axis of view 2. to comprehend the measuring in the perspective with horizontal axis of view and in the perspective with inclined axis of view 3. to solve the reconstruction problems based on the photo 4. to explain the reflections in perspective where reflecting surface is vertical and parallel/inclined to picture plane
--	---	---	---	---

Component (Course) code
 Master course
 Professor
 Term – semester – Compulsory /
 Optional course
 Language of instruction / Other
 languages for consultative teaching
 Type of course unit + additional
 activities
 ECTS credit
 Contact of Professor

Course Description

Course Objective

Course Syllabus

Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

193224

Industrial Archaeology
 /
Industrijska arheologija

**Assoc. Prof. Zrinka Barišić
 Marenić, Ph.D.**

Summer – Optional course

English

15 lectures/sem

1.0 ECTS

Contact:

Assoc. Prof. Zrinka Barišić
 Marenić, Ph.D.
zrinka.barisic@arhitekt.hr
 office no.: 2 / -1 floor

The course deals with industrial heritage (factories and industrial ares) and technical monuments in wider sense (railway stations, markets, etc) with the purpose of establishing this category of architectural heritage in the context of social and technical history as well as in the architectural and urban planning context. The regeneration and re-use of the wider category of technical monuments heritage is dealt with in the greatest part of lectures.

...

Acquaintance with worldwide and Croatian industrial heritage, and the examples of re-use of industrial heritage as a basis for working on re-use projects for these buildings.

1. Industrial heritage, organization of the subject, its definition and methodology. Affirmation of interdisciplinary approach.
2. Historical framework. Historical development of industrialization in the world with special reference to Great Britain as the home country of the First Industrial Revolution.
3. Historical outline of the development of industry in Croatia. Reasons for its late appearance and introduction of only particular types of industry.
4. Technical culture buildings. Definition and the subject scope. Problems linked to location, spatial and structural principles. Evaluation.
5. Industrial heritage worldwide. Representative examples of technical monuments, their conservation and presentation.
6. Industrial heritage in Croatia. Representative examples (Zagreb, Rijeka, Rovinj, Osijek, Karlovac, Zadar, Split ...).
7. Regeneration and re-use of industrial heritage. Aims and principles of re-use, its methodology, socio-economic aspects and re-use selection criteria.
8. A historical outline of industrial heritage re-use. World (St. Catherine Docks, London; Cannery, San Francisco...) and Croatian re-use examples (Gliptoteka, Zagreb).
9. Regeneration of industrial zones. Industrial- archaeological parks.
10. Re-use of industrial heritage for housing purposes. Analysis and critical review of representative examples.
11. Re-use of industrial heritage for commercial purposes. Analysis and critical review of representative examples.
12. Re-use of industrial heritage for mixed purposes.
13. Re- use of industrial heritage for cultural purposes. Analysis and critical review of representative examples.
14. Re-use of industrial heritage for museums and galleries. Analysis and critical review of representative examples.
15. Bright future? Prospects.

...

Seminar work and oral .ppt presentation of the selected theme.

Compulsory Reading

1. Stratton, M.: Industrial Buildings Conservation and Regeneration, E&FN Spon, 2000
2. Hitchcock, H.R.: Architecture: Nineteenth and Twentieth Centuries, RThe Pelican History of Art, Penguin Books, 1978
3. Meurs, P.; Steenhuis, M.: Reuse, Redevelop and Design: How the Dutch Deal with Heritage, nai010 publishers in association with Cultural Heritage Agency of the Netherlands, Ministry of Education, Culture and Science, Rotterdam, 2017
4. ... Grad za 21. stoljeće, zbornik radova prvog hrvatskog simpozija o industrijskom naslijeđu (ed. Goršić, Mirjana), Karlovac, 2000

Additional Reading

1. Binney, M.; Machin, F.; Powell, K.: Bright Future, The Re-use of Industrial buildings, SAVE Britain's Heritage, 1990
2. Mazzotta, D.: Archeologia Industriale, la Stagione del Recupero, IUAV, Venecija, 1995
3. related papers published within: I., II., III., IV., V. međunarodna konferencija o industrijskoj baštini PRO TORPEDO, Rijeka, 2005 – 2012

On successful completion of the course, the student will be able to:

1. Critically assess the industrial built heritage and built heritage associated with technical and infrastructural achievements.
2. Evaluate the significance of individual designs.
3. Assess the spatial, construction and urban planning potential of industrial heritage.
4. Explain the necessity for restoration.
5. Interpret the quality of reference architectural and urban planning restoration work.
6. Suggest regeneration, or bottom-up interventions, artistic actions, temporary use etc., depending on the needs of the local community.
7. Integrate acquired knowledge as the basis of a restoration project.
8. Plan the restoration of abandoned industrial heritage, especially the most threatened sites.
9. Categorize industrial heritage according to significance, level of threat and restoration priority.
10. Write a conclusion for a research paper on industrial built heritage and built heritage associated with technical achievements.

Component (Course) code
 Master course
 Professor
 Term – semester – Compulsory /
 Optional course
 Language of instruction / Other
 languages for consultative teaching
 Type of course unit + additional
 activities
 ECTS credit
 Contact of Professor

Course Description

...
Course Objective

Course Syllabus

...
Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

<p>81956</p> <p>Mathematical Structures / Matematičke strukture</p> <p>Lecturer Marija Šimić Horvath, Ph.D</p> <p>Summer – Optional course</p> <p>Croatian / English</p> <p>15 lectures/sem</p> <p>1.0 ECTS</p> <p>Contact: Assist. Prof. Marija Šimić Horvath, Ph.D. marija.simic@arhitekt.hr office no.: 65 / ground floor</p>	<p>Describing basic mathematical structures with emphasis on the topological structure.</p> <p>...</p> <p>Analysis and cultivation of intuitive understanding of Euclidean space. Combination of the development of imagination and the exact approach to the problematics. Transformations of homeomorphism figures (groups of points) which allow more freedom than congruence transformations.</p>	<ol style="list-style-type: none"> 1. Sets. Functions 2. Euclidean space. Metrics in Euclidean space 3. Continuous functions. Homeomorphism 4. Figures in Euclidean space. Figure homeomorphism 5. Topological invariants 6. Curves 7. Topological invariants of curves 8. The notion of a graph 9. Euler's theorem for polyhedron. Surfaces 10 Euler characteristic 11. Möbius strip. Handle. Glueing surfaces 12. Closed surfaces. Classification theorem of closed surfaces. Klein bottle 13. Metric space. Topological structure. Topological space. Projective plane 14. Inductive dimension of a figure 15. Covering dimension of a figure <p>...</p> <p>Requirements Regular attendance Exam Written and oral exam</p>	<p>Compulsory Reading</p> <ol style="list-style-type: none"> 1. J. Hrnčević: Topologija (lecture notes) http://www.virtual.arhitekt.hr/nastava/ds 2. http://www.virtual.arhitekt.hr/nastava/ds <p>Additional Reading</p> <ol style="list-style-type: none"> 1. V. G. Boltjanski, V. A. Efremovič: Što je topologija, Školska knjiga; knjiga, Zagreb, 1973 2. V. Devide: Matematička čitanka, Školska knjiga, Zagreb, 1991 3. M. Emmer: From Topology To Virtual Architecture, Università di Roma 4. M.-O. Pavčević: Uvod u teoriju grafova, Element, Zagreb, 2009 	<p>Learning outcome</p> <ol style="list-style-type: none"> 1. Intuitively understand the mathematical notion of a set and mapping among sets (functions). 2. Develop the concept of Euclidean space and metric and apply metric characteristics to some problems from geometry and physics. 3. Interpret the notion of a graph of a function and plane curves using analytical methods. 4. Compare open and closed surfaces and interpret their use. 5. Understand the notion of topological space by using examples from everyday life. 6. Recognize topological invariants (features which remain unchanged under homeomorphisms) of curves.
--	---	---	---	--

Component (Course) code
 Master course
 Professor
 Term – semester – Compulsory /
 Optional course
 Language of instruction / Other
 languages for consultative teaching
 Type of course unit + additional
 activities
 ECTS credit
 Contact of Professor

Course Description

Course Objective

Course Syllabus

Methods and criteria of evaluation

Compulsory and Additional Reading

Course Learning Outcomes

<p>81958</p> <p>Building Structures - Methods and Practice / Metode i praksa nosivih konstrukcija u arhitekturi</p> <p>Associate Prof. Miljenko Haiman, Ph.D.</p> <p>Summer – Optional course</p> <p>Croatian / English</p> <p>15 lectures/sem</p> <p>1.0 ECTS</p> <p>Contact: Associate Prof. Miljenko Haiman, Ph.D. nhaiman@arhitekt.hr office no.: 222 / 2nd floor</p>	<p>Description Construction works of iron, and steel in the 19th and 20th centuries, review the details of the transfer of forces. Steel and glass facade, realized spatial steel structure. Composite structures of concrete and steel or wood-concrete. Spatial wooden structures, mesh structures, geodesic domes. Inflated structures and the air supported structures. Tensegrity and tensairity structures combining steel and wood.</p>	<ol style="list-style-type: none"> 1. Constructions made of iron, wrought iron, and steel in the 19th and the 20th century, review of details and force transmission 2. Skeleton construction in steel, significant buildings, details 3. Superstructure and sustainable construction in steel, examples, flow of forces, details, dimensions 4. Steel and glass facades, spatial steel structures realized 5. Architects and architecture of steel bridge structures 6. Residential buildings made in steel worldwide and in Croatia 7. Composite structures of steel and concrete or wood-concrete. Possible spans, combinations and dimensions 8. Contemporary wooden structures worldwide and in general, recommended dimensions 9. Contemporary wooden structures and state-of-the-art detail-solving possibilities (continued) 10. Spatial wooden structures, mesh structures, geodesic domes, tensegrity wood-steel structures 11. Wooden structures of sports facilities, public and religious structures in our country and worldwide 12. Timber structures in recent housing construction, possibilities, new products, combinations, dimensions 13. Suspended large-span structures 14. Inflated structures and air-supported structures 15. Combinations of constructions made of steel, wood and inflated cushions, examples <p>...</p> <p>Requirements Seminar paper</p>	<p>Compulsory Reading 1. Androić, Dujmović, Džeba: Metalne konstrukcije 4, Zagreb, 2003 2. Bruno, Bollinger, Davies, Feldmann, Grohmann, Mazzolani: Featuring Steel, resources, architecture, reflections, Institute fur internationale Architektur-Dokumentation, Munich 2009 3. Goetz, Hoor, Moehler, Natterer; Timber design & Construction Sourcebook, Co. McGraw-Hill, inc. USA, 1989 4. M. Kitek Kuzman, Gradnja z lesom, Ljubljana 2008 5. Haiman: Lecture materials which will be available on the Internet</p> <p>Additional Reading 1. Frei Otto, F.K. Schleyer: Zugbeanspruchte Konstruktionen, Band 1, Frankfurt - Berlin, 1966 2. Frei Otto, R. Trostel: Zugbeanspruchte Konstruktionen, Band 2, Frankfurt - Berlin, 1966.</p>	<ol style="list-style-type: none"> 1. Properly create and design a building structure according to selected materials. 2. Recognize (understand) different types of building structures and select the dimensions correctly. 3. Creatively apply the knowledge and methods of technical arts and sciences and social and natural sciences to an architectural and urban planning design which meets technical requirements of the discipline. 4. Critically assess the designed or realized architectural and urban schematic design. 5. Cooperate in architectural and interdisciplinary project and research teams on professional, scientific and art projects.
--	---	--	---	---

All courses are taught face to face.

Most courses are taught in Croatian. Each course offers consultative teaching in English. Some courses also offer consultive teaching in Italian, German, French or Spanish. Only up to 20% of all offered courses are taught in English – it is impossible to make 30 ECTS only in English!