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| Course: | *Landscape design-studio* |
| Course id: 3MPA1O01 |
| Number of ECTS: 10 |
| Teacher: | Mirjana Sekulic, Ph.D., Assistant Professor |
| Course status | Mandatory |
| Number of active teaching classes (weekly) |
| Lectures: 2 | Practical classes: 4 | Other teaching types: seminars project work | Study research work: | Other classes: |
| Precondition courses | None/navesti ako ima |
| 1. Educational goal

Student should develop skills in planning new contents and solving spatial problems. Given tasks will involve a bigger areas (maps in smaller scales) and comprehensive perception of landscape will be demanded. Student will gain skills to apply general concepts, methods, etc. on the real problems (adapting to the context) and skills to design thematic areas inside of green public spaces. |
| 1. Educational outcomes

Student will gain following qualifications: ability to identify/define a problem, ability to abstract and generalise (abstraction of concrete solutions in design and planning concepts), ability of comprehensive overall perception of landscape; capability to plan space, competence to work in interdisciplinary teams; capacity to work individually or in a team. |
| 1. Course content

*Theoretical part*Review of new theories and doctrine in shaping landscape. Planning and moulding spatial complexes; spaces or landscapes, united by content and program (thematic projects).*Practical part, exercises, other forms of teaching, studio or research work*The content focus is on the team project workshops, which will be dealing with projects of high complexity in sense of task and structure. The thematic assortment of project examples is being selected with a focus on the demanding problems of urban areas, in bigger and smaller scale, from the level of urban parks to the green infrastructure development on the city level. |
| 1. Teaching methods

Individual work with students-correction of the student works, lectures about specific problems on the seminar. Collecting material (including terrain work), conversations with corresponding administrative authorities, studio work, presentations in front of a group, defence of suggested solutions, public defence in front of the interested audience. |
| Knowledge evaluation (maximum 100 points) |
| Pre-examination obligations | Mandatory | Points | Final exam  | Mandatory | Points |
| Activity during lectures | Yes | 10 | Oral part of the exam | Yes | 30 |
| Seminars project work | Yes | 60 |  |
| Literature  |
| Ord. | Author | Title | Publisher | Year |
|  | Gazvoda, D. | Characteristics of modern landscape architecture and its education | Landscape and Urban Planning, vol. 60, no. 2, Elsevier, pp. 117-133. | 2002 |
|  | Harris, C., and N. Dines. | Timesaver Standards for Landscape Architecture | McGraw-Hill | 1997 |
|  | Ormsbee, S. J. and Starke, W.B. | LANDSCAPE ARCHITECTURE, A manual of environmental planning and design | McGraw-Hill | 2006 |
|  | Kongjian Yu | Art of Survival: Recovering Landscape Architecture | Images Publishing Group Pty Ltd | 2007 |
|  | Girot, Cristophe | Four Trace Concepts in Landscape Architecture | James, Corner (editor), Recovering Landscape: Essays in Contemporary Landscape Architecture, Princeton Architectural Press, 59-67 | 1999 |
|  |  [Jodidio](http://www.taschen.com/pages/en/search/result.1.htm?show_all=catalogue&search_string=%22philip+jodidio%22), Philip | Landscape Architecture Now! | TASCHEN | 2012 |
|  | Waldheim, Charles | The Landscape Urbanisam Reader | Princeton Architectural Press | 2005 |

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| Znak univerziteta | UNIVERSITY OF NOVI SADFACULTY OF AGRICULTURE 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 8 | Znak fakulteta2 |
| Study Programme AccreditationMASTER ACADEMIC STUDIES LANDSCAPE ARCHITECTURE |
| Table 5.2 Course specification |
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| --- | --- |
| Course: | *Spatial Planning* |
| Course id: 3MПА1О02 |
| Number of ECTS: 6 |
| Teacher: | Prof. dr Jasmina Đorđević |
| Assistant: | MSc Ivana Sentić |
| Course status | Mandatory |
| Number of active teaching classes (weekly) |
| Lectures: 3 | Practical classes: 2 | Other teaching types: - | Study research work: - | Other classes: - |
| Precondition courses | None |
| 1. Educational goal

To give students the necessary knowledge about spatial planning and organization of a space, with an emphasis on natural features in the development of spatial plans. Introduction to the theory of spatial planning and practical problems with arranging the larger spatial units. Introduction to the methodology of spatial plans according to their types (spatial plan from the national to the local level) and the basic principles of spatial planning. |
| 1. Educational outcomes

Training students for high-quality theoretical and practical knowledge in the field of spatial planning and the potential application of this knowledge in practice, particularly in the development the spatial plans. |
| 1. Course content

*Theoretical classes:*1. Basic concepts, definitions of spatial planning, terminology.2. The essential institutions for spatial planning.3. Legislation in spatial planning.4. Types of spatial plans.5. Structural parts in spatial plans, with a focus on natural features (natural features and resources, population, network of the settlements, economic activities, transportation, infrastructure systems, environment).*Practical classes:*Introducing with the contents of spatial plans at national, regional and local level. Group work on presenting the content of spatial plans and simulation of the same. |
| 1. Teaching methods

Frontal, indirect forms, specific types of teaching work. The method of oral presentations, discuss methods, textual methods, illustrative-demonstrative methods, cartographic methods and others. Auto oral presentation of drawn project with control of the subject teacher and assistant. |
| Knowledge evaluation (maximum 100 points) |
| Pre-examination obligations | Mandatory | Points | Final exam | Mandatory | Points |
| Lecture attendance | Yes | 5 | Oral exam | Yes | 45 |
| Exercise attendance | Yes | 5 | TOTAL: 100 points |
| Design project | Yes | 15 |
| Colloquium | Yes | 30 |
| Literature  |
| Ord. | Author | Title | Publisher | Year |
| 1. | Faludi, A.  | A Decision-centred View of Environmental Planning. Urban and Regional Planning Series, Vol. 38. | Oxford: Pergamon Press | 1987 |
| 2. | Heidemann, C. | Regional Planning Methodology. The First & Only Annotated Picture Primer on Regional Planning. | Institut für Regionalwissenschaft der Universität Karlsruhe | 1992 |

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| Znak univerziteta | UNIVERSITY OF NOVI SADFACULTY OF AGRICULTURE 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 8 | Znak fakulteta2 |
| Study Programme AccreditationMASTER ACADEMIC STUDIES LANDSCAPE ARCHITECTURE |
| Table 5.2 Course specification |
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| --- | --- |
| Course: | *Reconstruction and Revitalization of Settlements* |
| Course id: 3MПА1О03 |
| Number of ECTS: 6 |
| Teacher: | Ass. Professor Ksenija Hiel |
| Assistant: | Ass. Ivana Sentić |
| Course status | Mandatory |
| Number of active teaching classes (weekly) |
| Lectures: 3 | Practical classes: 2 | Other teaching types: | Study research work: | Other classes: |
| Precondition courses | None/navesti ako ima |
| 1. Educational goal

Introducing students to the complex principles of reconstruction and revitalization of the urban fragments of the settlements. Mastering the basic principles of the protection of the built environment of urban and rural areas and multidisciplinary cooperation in the reconstruction process. |
| 1. Educational outcomes

The possibility of adequate application of knowledge acquired in the process of reconstruction and revitalization of the settlements. |
| 1. Course content

Theory: Defining the basic principles of protected and heritage environment. The study of the theoretical and practical aspects of various possibilities of reconstruction and revitalization of urban morphology interact with architectural typologies. Renewal area of social integration and their landscaping.Practical classes: Through graphics and essays - Development of the project of reconstruction and revitalization of selected fragments settlement with the application of the principle of adequate protection of the built environment. |
| 1. Teaching methods

Lectures, Consultations, Field trip, research work |
| Knowledge evaluation (maximum 100 points) |
| Pre-examination obligations | Mandatory | Points | Final exam (izabrati) | Mandatory | Points |
| Lecture attendance | Yes | 5 | *Theoretical part of the exam/Oral part of the exam/Written part of the exam-tasks and theory* | Yes | 35 |
| Test | No | 0 |  |
| Exercise attendance | Yes | 35 |
| *Term paper* | Yes | 25 |
| Literature  |
| Ord. | Author | Title | Publisher | Year |
| 1. | Gehl J., Gemzoe L., Kirnaes S. | New City Life | The Danish Architectual Press, Copenhagen, | 2006 |
| 2. | Carr S., Francis M., Rivlin L. | Public Space | Cambridge University Press, Cambridge | 1995 |
| 3. | Moughtin C., Oc T., Tiesdell S. | Urban Design Ornament and Decoration | Architectural Press, Oxford | 1999 |
| 4. | Wolley Helen | Open Urban Spaces | Spon Press, London and New York | 2003 |

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| Znak univerziteta | UNIVERSITY OF NOVI SADFACULTY OF AGRICULTURE 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 8 | Znak fakulteta2 |
| Study Programme AccreditationMASTER ACADEMIC STUDIES LANDSCAPE ARCHITECTURE |
| Table 5.2 Course specification |
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| Znak univerziteta | UNIVERSITY OF NOVI SADFACULTY OF AGRICULTURE 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 8 | Znak fakulteta2 |
| Study Programme AccreditationMASTER ACADEMIC STUDIES LANDSCAPE ARCHITECTURE |
| Table 5.2 Course specification |

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| --- | --- |
| Course: | *Vegetation and plant material* |
| Course id: 3MПА2И07  |
| Number of ECTS: 6 |
| Teacher: | Sasa Orlovic, PhD, full professor  |
| Course status | Elective |
| Number of active teaching classes (weekly) |
| Lectures: 2 | Practical classes: 2 | Other teaching types:  | Study research work: | Other classes: |
| Precondition courses | None |
| 1. **Educational goal** of the course is to expand students knowledge in the field of vegetation and plant species, the environmental attributes of species and plant communities, succession and application of different management systems.
 |
| 1. **Educational outcomes**. The student is qualified for further development through doctoral studies for scientific work in the field of vegetation and plant material.
 |
| 1. **Course content**

*Theory lessons**Plant species in different plantations (windbreaks, eco corridors, green roads, planted for recultivation); requirements of plant species to environmental conditions; plant community succession; the impact of different ways of managing the maintenance of plant communities, forest in the changed climate conditions.**Practical classes:**Integrative forest vegetation in the area in order to preserve the diversity and functionality.* |
| 1. Teaching methods

Lectures, Practice/ Practical classes, Consultations, study,  |
| Knowledge evaluation (maximum 100 points) |
| Pre-examination obligations | Mandatory | Points | Final exam  | Mandatory | Points |
| Lecture attendance | Yes | 10 | *Oral part of the exam* | Yes | 30 |
| Exercise attendance | Yes | 20 |  |
| Seminar paper | Yes | 40 |
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| Literature  |
| Ord. | Author | Title | Publisher | Year |
| 1. | Turner,M., G,Gardner,H.R., O Neill,V.R. | Landscape Ecology in Theory and Practice – Pattern and Proces | Springer-Verlag New York, Inc | 2001 |
| 2. | Almo F. | Principles and Methods in Landscape Ecology | The University of Urbino, Italy | 2005 |
| 3. | Forrest, M. | Landscape trees and shrubs | Dublin | 2006 |
| 4. | Forster, N. | Ecological planning | Baltimore | 2002 |

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| Znak univerziteta | UNIVERSITY OF NOVI SADFACULTY OF AGRICULTURE 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 8 | Znak fakulteta2 |
| Study Programme AccreditationMASTER ACADEMIC STUDIES LANDSCAPE ARCHITECTURE |
| Table 5.2 Course specification |

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| --- | --- |
| Course: | *Research and application of the visual language* |
| Course id: 3MПА2И08 |
| Number of ECTS: 6 |
| Teacher: | Lidija Srebotnjak-Prišić |
| Course status | Elective |
| Number of active teaching classes (weekly) |
| Lectures: 2 | Practical classes: 2 | Other teaching types: - | Study research work: - | Other classes: - |
| Precondition courses | None |
| 1. Educational goal

Providing knowledge in the field of visual language and culture. Adopting and understanding the methods that exist in the field of synthesis of fine art and landscape architecture at the level of complex artistic researches, independently and as part of the project. |
| 1. Educational outcomes

Giving ability to students to apply the acquired knowledge and skills in their future independent professional work. |
| 1. Course content

Theoretical classes:Art as a form of communication. The visual integrity of the art space. Content and concept of art compositions. Beautiful surroundings. Sublimation of visual expression. The ambient condition. Art architecture. Deployment in space. The experience of space. The spatial identity. Identity of matter. Outside - inside. Biomorphic form.Practical classes:The visual relationships: chaotic- regulated; stable-unstable; hard-easy; high-low; stressed-unstressed; static-dynamic; light-dark; hot and cold; matt great. Soft space. Hard space. Silence. Emptiness. Whiteness. |
| 1. Teaching methods

Lectures, exercises, graphic works, consultations. |
| Knowledge evaluation (maximum 100 points) |
| Pre-examination obligations | Mandatory | Points | Final exam | Mandatory | Points |
| Lecture attendance | Yes | 5 | Oral exam | Yes | 30 |
| Exercise attendance | Yes | 5 | TOTAL: 100 points |
| Design project | Yes | 20 |
| Colloquium | Yes | 40 |
| Literature  |
| Ord. | Author | Title | Publisher | Year |
| 1. | Carol, M. | Daily Painting: Paint Small and Often To Become a More Creative, Productive, and Successful Artist | China: Watson-Guptill plibications | 2014 |
| 2. | Reid, G. | Landscape Graphics | USA:ASLA | 2002 |

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| Course: | *Application of the universal design in landscape architecture* |
| Course id:3MПА2И09 |
| Number of ECTS: 6 |
| Teacher: | Prof. dr Aleksandra Tišma, Ana Lakić, MSc |
| Course status | Elective |
| Number of active teaching classes (weekly) |
| Lectures: 2 | Practical classes: 2 | Other teaching types: | Study research work: | Other classes: |
| Precondition courses | None/navesti ako ima |
| 1. Educational goal

Creating projects of accessible open space in order to achieve free and unimpeded movement and use by all groups of citizens, especially people with disabilities, through the application of basic knowledge of universal design. |
| 1. Educational outcomes

Application of the theoretical framework in the field of accessibility - Working on the specific projects that demonstrate the acquired skills of design by the principles of universal design, removing obstacles and barriers in the built environment, understanding the concept of accessibility in the process of planning or reconstruction of objects of landscape architecture . |
| 1. Course content

Theory lessonsExamples of accessible design in landscape architecture. International experience in the application of universal design. Horticultural therapy.Practical teaching:Project - application of the principles of accessibility and universal design on the specific areas: the analysis of space accessibility, identifying barriers, a survey of space users, conceptualization of the solutions, composition design, detail design, finalization. Graphic, oral and multimedia presentation of the project.The debate on the topic of open space accessibility - the debate aims to enable students to critical thinking, building arguments, arranged presentation, persuasion and finding ways to overcome conflicts. The participants in the debate are expected to think critically about accessibility issues in our community and search for answers to this important social issue. |
| 1. Teaching methods

Classes are held through thematic lectures - presentation of theoretical fundamentals through examples from international and domestic practice with conversation and discussion with students, exercises, consultations, field work, individual projects, debates, and work with reference target groups. |
| Knowledge evaluation (maximum 100 points) |
| Pre-examination obligations | Mandatory | Points | Final exam (izabrati) | Mandatory | Points |
| Lecture attendance | Yes | 10 | *Oral part of the exam* | Yes | 30 |
| term paper | Yes | 10 |  |
| graphic work | Yes | 50 |
| Literature  |
| Ord. | Author | Title | Publisher | Year |
| 1. | Donna Rodman, Petra Frederick, Manfred Wuensche, Greg Turnbull, Don Thorogood, Ed (Chum) Richardson, and Maria Kovacs | Plan and Design for Choice, Universal Design Guidelines for Outdoor Spaces | City of Pitt Meadows and the District of Maple Ridge. | 2009 |
| 2. | Evans, Philip S. | Accessible Landscapes: Designing for Inclusion | San Francisco State Univ P L O P, USA | 1993 |

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| Znak univerziteta | UNIVERSITY OF NOVI SADFACULTY OF AGRICULTURE 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 8 | Znak fakulteta2 |
| Study Programme AccreditationMASTER ACADEMIC STUDIES LANDSCAPE ARCHITECTURE |
| Table 5.2 Course specification |

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| --- | --- |
| Course: | *Biological Principles in Environmental Protection* |
| Course id: ЗMПА2И10 |
| Number of ECTS: 6 |
| Teacher: | Milena Lakićević PhD |
| Course status | Elective |
| Number of active teaching classes (weekly) |
| Lectures:2 | Practical classes:2 | Other teaching types: | Study research work: | Other classes: |
| Precondition courses | None |
| 1. Educational goal

Obtaining knowledge regarding biological and environmental principals, theories and methods in landscape ecology.  |
| 1. Educational outcomes

Capability to model and manage landscapes respecting the biological principals in environmental protection.  |
| 1. Course content

Principles of landscape classification, Theories and models incorporated in the landscape ecology framework, Scaling patterns and processes across landscapes, Landscape organization and scaling approach, Emerging processes in the landscape (disturbance, fragmentation,connectivity, connectedness and corridors), Emerging patterns in the landscape (landscape heterogenity, ecotones), Principles of landscape dynamics (stability in landscapes, self-organizing mechanism and landscapes, landscapes shaping factors, human perturbed landscapes, patterns in landscape changes, patterns and processes in land abandonment), Principles for landscape conservation, management and design, Methods in landscape ecology (non-spatial metrics, spatial metrics, the fractal geometry approach, GIS, GPS, remote sensing in landscape ecology, spatially explicit population models).  |
| 1. Teaching methods

Lectures, Practical classes, Consultations |
| Knowledge evaluation (maximum 100 points) |
| Pre-examination obligations | Mandatory | Points | Final exam  | Mandatory | Points |
| Lecture attendance | Yes | 5 | *Oral part of the exam* | Yes | 40 |
| Practical classes attendence | Yes | 5 |  |
| Term paper | Yes | 50 |
| Literature  |
| Ord. | Author | Title | Publisher | Year |
| 1. | Farina A. | Principles and Methods in Landscape Ecology: Towards a Science of Landscape | Springer | 2006 |

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| Znak univerziteta | UNIVERSITY OF NOVI SADFACULTY OF AGRICULTURE 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 8 | Znak fakulteta2 |
| Study Programme AccreditationMASTER ACADEMIC STUDIES LANDSCAPE ARCHITECTURE |
| Table 5.2 Course specification |

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| Znak univerziteta | UNIVERSITY OF NOVI SADFACULTY OF AGRICULTURE 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 8 | Znak fakulteta2 |
| Study Programme AccreditationMASTER ACADEMIC STUDIES LANDSCAPE ARCHITECTURE |
| Table 5.2 Course specification |

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| --- | --- |
| Course: | *Genetic resources and biodiversity* |
| Course id:3MПА2И11 |
| Number of ECTS: 6 |
| Teacher: | Professors: Dr Vladislav M. Ognjanov, full time professor Dr Mirjana Ž. Ljubojević, assistant professorAssistant: MSc Dušica, R. Bošnjaković |
| Course status | Elective |
| Number of active teaching classes (weekly) |
| Lectures:2 | Practical classes:2 | Other teaching types: | Study research work: | Other classes: |
| Precondition courses | None |
| 1. Educational goal

Theoretical and practical knowledge related to the conservation and utilisation of genetic resources in horticulture and landscape architecture, and qualifications of students for scientific - research work in the field of biodiversity and its conservation. |
| 1. Educational outcomes

A student who successfully completes the course is trained to recognize the importance of genetic resources of horticultural plants, its importance and use directly for greening purposes or as a part of breeding programs. |
| 1. Course content

Theory lessons:The spread of biodiversity through the indigenous, allochthonous, subtropical and tropical fruit species and their importance for science and practice in horticulture and landscape architecture. Autochthonous species and varieties: Conservation of genetic resources of wild fruit species. The selection from natural populations. The morphological characteristics, ecological and physiological characteristics, distribution and economic importance of dogwood, cranberry, wild strawberry, blueberry, mahaleb, juniper, wild apples, pears and cherries, wild roses, etc. Polymorphism and selection of specific properties. The nutritive value of wild fruit species. Possibility of forest fruit species growing under integrated and organic concept. Fruit processing according to traditional principles and ethno-botanical significance. Non-native (allochthonous), subtropical and tropical species: Origin, specific climatic and edaphic conditions of cultivation, the application possibility of these types on green areas. Fruit processing possibilities. Decorative training systems and gardening skills in tree shaping.Practical classes:Preservation, conservation, characterization, documentation, exchange of plant genetic resources, certification and media promotion. Recognition of forest species in natural associations. Recognition of introduced species and their growing conditions. |
| 1. Teaching methods

Lectures, Practical classes, Consultations |
| Knowledge evaluation (maximum 100 points) |
| Pre-examination obligations | Mandatory | Points | Final exam (izabrati) | Mandatory | Points |
| Lecture attendance | Yes | 10 | Theoretical part of the exam/Oral part of the exam | Yes | 40 |
| Test | Yes | 20 |  |
| Exercise attendance | Yes | 10 |
| Term paper | Yes | 20 |
| Literature  |
| Ord. | Author | Title | Publisher | Year |
|  | Moore J.M.,Ballington Jr.J.R. | Acta Horticulture 290/Genetic resources of temperate fruit and nut crops 1 | International Society for Horticulture Science, 1991. | 1991 |
|  | Moore J.M.,Ballington Jr.J.R. | Acta Horticulture 290/Genetic resources of temperate fruit and nut crops 2 | International Society for Horticulture Science, 1991. | 1991 |
|  | Sharp W.R.,Evans D.A., Ammirato P.V.,Yamada Y. | Handbook of plant and cell cultureTechniques for propagation and breeding /volume 1 | Macmillan Publishing Company, New York, 1983. | 1983 |