Master of Landscape Architecture (MLA) degree at the Agricultural University of Athens

Curriculum information

The Agricultural University of Athens (AUA) is the third oldest university in Greece founded in 1920, and the Department of Crop Science (the first Department of Crop Science in Greece) is among the oldest of the University. Amongst other postgraduate programs the Department of Crop Science of AUA provides postgraduate studies on Landscape Architecture since 2002. The current Master of Landscape Architecture (MLA) operates since 2012 and the degree received recognition by the International Federation of Landscape Architects (IFLA) in December 2015. The MLA programme is a 2year postgraduate course. The MLA curriculum focusses on conceptual and applied design that is achieved through the design studio, an essential component of Landscape Architecture education. A multi-disciplinary approach is applied in Design to cater for the multidisciplinary aspects of landscape architecture. Emphasis is given to the Special Design project that applies all knowledge obtained by the modules of the curriculum. In addition, lecturers, demonstrations, individual and group tutorials and student presentations form part of the graduate curriculum. Small class size of 20 students maximum offer opportunities to raise student-faculty discussions that contribute in developing and enhancing student creativity. The curriculum leads to the completion of a Thesis on a variety of design and research subjects.

Admission

Candidates holding a four-year or five-year professional degree in Sciences from Greece or abroad, are eligible for study in the MLA postgraduate programme of AUA. It is a requirement that the candidate holds a degree awarded with a grade > 6.5 (1-10 scale). Additional submission requests but not requirements for admission evaluation include, candidate: CV, ID proof, undergraduate academic record (grades of modules related to landscape architecture are considered), portfolio, publications, references (two) and English language certificate (minimum Level B2). Candidates not holding an English language certificate - Level B2 from Certified Institutes of Greece are required to take a language test. Eligible candidates are called for an interview. Each candidate's submitted material and interview will be reviewed for their ability to enhance their education and work experience by attending the MLA postgraduate programme of AUA.

Duration/ ECTS-Credits: 4 semesters / 120 ECTS-Credits
Mode of Study: Full-Time

YEAR ONE

SEMESTER ONE

AT 402: Landscape Architecture Studio I	10 ECTS
AT 601: Introduction to MLA Thesis	5 ECTS
AT 405: Landscape Plants	4 ECTS
AT 401: History and Theory of Landscape Architecture	3 ECTS
AT 403: Materials and Technology in Landscape Architecture	3 ECTS
AT 404: Urban and Suburban Ecology	3 ECTS
AT 406: Landscape Digital Media	2 ECTS

SEMESTER TWO

AT 502: Landscape Architecture Studio II	10 ECTS
AT 504: Planting Design	6 ECTS

AT 602: Introduction to MLA Thesis	6 ECTS
AT 501: Theory of Contemporary Landscape Architecture	3 ECTS
AT 503: Landscape Construction	3 ECTS
AT 407: Landscape Representation (elective)	2 ECTS
AT 408: Turfgrass Management for Sports and Recreation (elective)	2 ECTS

YEAR TWO
SEMESTER THREE

AT 505: Advanced Studio Landscape Architecture	12 ECTS
AT 603: Introduction to MLA Thesis	5 ECTS
AT 507: Landscape Management	4 ECTS
AT 410: Landscape Assessment	3 ECTS
AT 409: Cultural and Social Aspects of Landscape Architecture	3 ECTS
AT 506: Bioclimatology & Bioclimatic Design of Urban Open Space	3 ECTS

SEMESTER FOUR

AT 604: MLA Thesis	22 ECTS
AT 508: Landscape Restoration and Ecological Design	4 ECTS
AT 411: Environmental Impact Studies	3 ECTS
AT 412: Legislation and Project Management	1 ECTS

Module Descriptions and Tutors for the "Master of Landscape Architecture" degree

SEMESTER ONE

Module number: **AT 401**
Module name: **History and Theory of Landscape Architecture**
Instructor: **Maria Papafotiou, Anastasia Akoumianaki-Ioannidou & Electra Kanellou**
Semester Taught: **1**
Credit Value: **ECTS 3**

Introduction to Garden Design and Landscape Architecture. Definitions, theories and practices. Historical review of garden design and landscape architecture. Analysis of designs, trends and styles dated between antiquity and the late 19th century [Antiquity (Egypt, Mesopotamia, Persia, Greece, Rome), Medieval (Byzantium, Islam, Western Europe, Moorish gardens of Spain), Rennaisance (Italy, France - *Andre Le Notre*, Netherlands, United Kingdom – *André Mollet*), naturalistic English Gardens (*Capability Brown, Humphrey Repton*), Far East (China, Japan), Eclectic (Victorian) English Gardens (*John Claudius Loudon, Joseph Paxton*), Arts and Craft movement in the United Kingdom (*Gertrude Jekyll*). For each era representative works are presented and analysed emphasising the design principles that contribute to the aesthetic and functional expression of the landscape, the evolution of peoples perceptions for the landscape as well as the influence on the evolution of landscape architecture and contemporary works.

Assessment Method:
Students will undertake oral exams. Studio work and tutorials leading to the submission of design proposals based on the principles of a particular "trend" or "style".

Module number: **AT 402**
Module name: **Landscape Architecture Studio I**

Instructor: **Angeliki Paraskevopoulou & Aikaterini Gkoltsiou**
Semester Taught: **1**
Credit Value: **ECTS 10**

Introduction to the fundamentals of landscape architecture i.e. function, form, texture, colour, structure, size, proportion, movement, pause, scale and place. Understanding the geometric characteristics and interrelationships of the natural and built open space. Concept, design process of open space and deepening theoretical knowledge of landscape architecture. Design graphic techniques (free hand drawing, sketching, plans, sections, elevations, perspective, isometric, axonometric drawings), and tools applied in landscape design and landscape architecture (models, images, collages and other individual means of expression). Presentation techniques applied in landscape architecture (concept plans, final plans, construction plans). Design process: site inventory and analysis, functional diagrams, conceptual plans, concept, design plans. The concept of synthesis in landscape architecture. Design methodologies of residential and urban open spaces.

Assessment Method:
A series of studio work and tutorials, leading to the submission of design proposals for selected sites.

Module number: **AT 403**
Module name: **Materials and Technology in Landscape Architecture**
Instructor: **Aikaterini Gkoltsiou & Nikolaos Ntoulas**
Semester Taught: **1**
Credit Value: **ECTS 3**

Identify the concepts of landscape construction details, process and synthesis of construction materials to create functional, aesthetic and well executed landscape spaces. Develop skills in creating articulate landscape construction drawings. Introduce key elements of landform (topographic maps, contours) and its composition. Main materials and material combinations used in Landscape Architecture: overview and analysis of their physical characteristics and properties, advantages and disadvantages, market availability, corrosion and durability. Analyse the construction details of the main infrastructures and outdoor furniture used in landscape architecture (floors and surfaces, stairs, walls, water surfaces, pergolas, seating areas, etc.).

Assessment Method:
Submission of design exercises.

Module number: **AT 404**
Module name: **Urban and Suburban Ecology**
Instructor: **Konstantinos Saitanis, Panayiotis Trigas, Georgios Papadoulis & Chrysi Papadimitriou**
Semester Taught: **1**
Credit Value: **ECTS 3**

Analyse the main types of ecosystems and their characteristics. Describe and analyse the population distribution of flora and fauna species and define their ecological value. Vegetation zones of Greece, geographic distribution, and climatic conditions of each zone. Main types of habitats found in each zones. Introduce representative plant species for each habitat. Describe morphological and

ecological traits of plant species. Describe the use and management principles for each type of ecosystem. Sustainable and ecological design of urban and suburban areas. Historical review of Urbanisation. Sustainable management of natural resources. Sustainable consumption and development. Describe natural and urban ecosystems with emphasis on similarities and differences. Urban development and changes/modifications to the landscape. Fragmentation of ecosystems. Biodiversity and urban ecosystems. Case studies of cities with protected and increased biodiversity. Urban pollution with emphasis on: a. noise and photochemical pollution as well as the use of suitable plant species for mitigation, b. methods of waste management, c. management of contaminated land, phytoremediation, the use of plants in decontamination. Atmospheric pollution; gaseous and particulate pollution, effect on plants. Bioindicators, biomonitors of air pollution. Dangerous pollutants for human health with emphasis on indoor pollution (residential, office buildings, public transport).

Assessment Method:
Submit a written report and/or drawing exercise related to the design, establishment and/or management of planting schemes based on ecological principles.

Module number: **AT 405**
Module name: **Landscape Plants**
Instructor: **Maria Papafotiou & Konstantinos Bertsouklis**
Semester Taught: **1**
Credit Value: **ECTS 4**

Analyse the main morphological features of ornamental plant species found in Greece (evergreen and deciduous trees and shrubs, annuals, biennials and perennials, geophytes, climbers, hydrophytes and Mediterranean native plants). Reference is made to the origin, growth zone, shape, distinctive ornamental features, growth conditions, environmental and cultivation requirements of the plants. The potential to use and integrate plants within landscape design is emphasised. Practicals include demonstration of plant species in the botanical garden and the campus of the Agricultural University of Athens.

Assessment Method:
Students will undertake oral exams and submit an ornamental plant species file that also includes detailed drawings of the plants (shape, texture, leaves, flowers, fruit, etc.).

Module number: **AT 406**
Module name: **Landscape Digital Media**
Instructor: **Angeliki Paraskevopoulou, Dionissios Kalivas & Electra Kanellou**
Semester Taught: **1**
Credit Value: **ECTS 2**

Introduce the use of computers in landscape architecture. Develop computing skills in CAD and GIS software. Present main tools in 2D and 3D modelling. Synthesis and set up of final different drawings at different scales.

Assessment Method:

Design exercises produced by Cad and GIS software.

Module number: **AT 601**
Module name: **Introduction to MLA Thesis**
Instructor: **Maria Papafotiou, Angeliki Paraskevopoulou & Aikaterini Gkoltsiou**
Semester Taught: **1**
Credit Value: **ECTS 5**

Independent research of student under the supervision of a staff member of a design subject or study related to landscape architecture. Continuation of current module in modules AT 602, AT 603 and AT 604. Students are expected to contact their supervisor to define the field of research. Undertake literature review of proposed research field and investigate possible research methodology.

Assessment Method:
Submission of summary describing the field of research, preliminary literature review and suggested methodology.

SEMESTER TWO

Module number: **AT 407**
Module name: **Landscape Representation**
Instructor: **Angeliki Paraskevopoulou, Electra Kanellou, Emmanouela Kamperi & Marina Chletsou**
Semester Taught: **2**
Credit Value: **ECTS 2**

Introduce representation methodologies and techniques applicable to the current needs of the landscape profession in order to clearly and artistically express and communicate design proposals. Representation media include: sketches, drawings, maps, diagrams, photos, texts, models, collages of design images of materials and textures, 3D modelling, photo-editing, and graphic design software. Effective use of representation media to communicate effectively and articulately design proposals through poster and oral presentations is considered critical in creating competitive and successful candidates entering landscape architectural competitions.

Assessment Method:
Submission of design proposal of selected area using various representation media.

Module number: **AT 408**
Module name: **Turfgrass Management for Sports and Recreation**
Instructor: **Nikolaos Ntoulas & George Kargas**
Semester Taught: **2**
Credit Value: **ECTS 2**

Describe in detail the establishment of turfgrass in sports grounds and open spaces. The design, establishment and management of turgrass in sports grounds within Greece (golf courses, football, equestrian and baseball fields). New technologies in the establishment and management of turfgrass in sports fields. Selection of

appropriate infrastructures, irrigation and drainage systems, for each type of sport facility. Methodologies and techniques for managing turfgrass depending on the type of turf species and sports ground. Methodologies of substrate reinforcement. Nutrient and water requirements for turfgrass in sports fields. Application of recycled and desalinated water in irrigation of turfgrass. Identification of environmental impacts of turf management practices applied in sports grounds. Integrated management of turfgrass in sports grounds. Mechanical equipment for managing effectively sports turf. Supporting equipment and specialised structures of sport facilities. Analyse case studies within Greece and abroad and perform site visits.

Assessment Method:
Students will undertake written exams and submit a written essay.

Prerequisite: Attended the module "Garden Structures" of the Laboratory of Floriculture and Landscape Architecture, Faculty of Crop Science of the Agricultural University of Athens, or other equivalent University module.

Module number: **AT 501**
Module name: **Theory of Contemporary Landscape Architecture**
Instructor: **Maria Papafotiou & Aikaterini Gkoltsiou**
Semester Taught: **2**
Credit Value: **ECTS 3**

Analyse and evaluate the theoretical base of modern landscape architecture as well as its interrelation with the modern and the post-modern movement in architecture and the arts: Frank Lloyd Wright, Walter Gropius, Richard Neutra, Mies Van der Rohe, Le Corbusier, Alvar Aalto, Louis Kahn, Pikionis and Aris Konstantinidis. Introduce the theoretical background of the design of large urban areas: Thomas Hayton Mawson, Frederic Low Olmstead. Present the most important and representative landscape architects of contemporary landscape architecture and analyse their work. Design principles of abstract art and its application in Landscape Architecture (1930-1950). Search for new forms and design principles in the design of modern landscapes: Gabriel Guevrekian, Fletcher Steele, Christopher Tunnard, and Thomas Church. Search of modern expression in Landscape Architecture during 1950-1960: Daniel Kiley, Garrett Eckbo, and James Rose. Alternative approaches to Modernism in Landscape Architecture: Roberto Burle Marx, Louis Barragan. Ecological approach to the design of Landscape Architecture: Ian McHarg, Lawrence Halprin. Minimalist and post-modern Landscape Architecture: Isamu Noguchi, Hideo Sasaki, Peter Walker, Martha Schwartz. The concept and significance of "place" in Landscape Architecture: Michael Van Valkenburgh, Laurie Olin, Georges Hargreaves. Particular emphasis is given in researching contemporary expressions in Landscape Architecture and new design approaches of 21st century landscapes. The Future of Landscape Architecture in the 21st Century: New trends in landscape design: Ken Smith Workshop, Field Operations, Kathryn Gustafson, Peter Wirtz, Jilles Clement, Fernando Caruncho.

Assessment Method:
Students will undertake oral exams. Students participate in workshops, leading to the submission of design proposals based on the principles of a particular "trend" or "style".

Module number: AT 502
Module name: Landscape Architecture Studio II
Instructor: Maria Papafotiou, Angeliki Paraskevopoulou & Nora Lefa
Semester Taught: 2
Credit Value: ECTS 10

Advanced application of design process continued on from module AT 402. The projects include multifunctional landscapes of large scale either public or private such as estates, hotel resorts, campuses, cultural spaces and urban parks. Emphasis is given in considering the main characteristics of the surrounding landscape (context, form, microclimate, features, etc.) and integrating them within the design process of the proposed projects. Detailed and thorough representation of the proposed landscape projects is a main requirement of this course.

Assessment Method:
Students participate in a series of studio work and tutorials leading to the submission of design proposals of small and large scale projects.

Module number: AT 503
Module name: Landscape Construction
Instructor: Maria Papafotiou, Aikaterini Gkoltsiou, Konstantinos Bertsouklis, Nikolaos Ntoulas & George Kargas
Semester Taught: 2
Credit Value: ECTS 3

Introduce the theory and design of various constructions, contributing to the development of aesthetically pleasing, environmental friendly and sustainable landscapes. Describe main types and construction guidelines for green roofs. Analyse the environmental, aesthetic, financial, and social benefits of green roofs. Describe construction of green roofs for urban food production. Criteria for selecting appropriate substrates and plant species emphasising the use of native plant species. Calculate irrigation water requirements of selected plants. Describe support methods of large sized plants. Present techniques and systems of green walls. Describe the theory and design process of automated irrigation systems for green spaces. Design drainage systems for green spaces and the landscape. Methods and case studies of wetlands constructed in combination with drainage systems. Theory and calculations for establishing reinforced soil structures, for embankments. Describe various methods and the design of lighting schemes. Perform site visits of projects relative to the module.

Assessment Method:
Students will undertake written exams of taught theory. Develop a written essay and make a presentation on a proposed subject. Participate in studio work and tutorials, leading to the submission of construction (irrigation, drainage, and lighting) plans and details of selected areas.

Prerequisite: Attended the module "Garden Structures" of the Laboratory of Floriculture and Landscape Architecture, Faculty of Crop Science of the Agricultural University of Athens, or other equivalent University module.

Module number: AT 504
Module name: Planting Design

Instructor: **Maria Papafotiou & Anastasia Akoumianaki-Ioannidou**
Semester Taught: **2**
Credit Value: **ECTS 6**

Introduction to the functional and aesthetic use of plants in landscape architecture. Analyse the structural, environmental, and aesthetic use of plants, for defining space, controlling or mitigating various environmental effects (noise abatement, erosion control, microclimate change and improvement of air quality) and enhancing aesthetic quality. Emphasising the significance of plant selection based on aims and objectives, design principles and plant characteristics (shape, form, colour and texture). Application of planting design principles on public or private landscapes, such as urban squares, gardens and cultural spaces.

Assessment Method:
Students participate in a series of studio work and tutorials, leading to the submission of detailed planting designs for various projects. Students submit a digital report on the classification of a number of plant species based on plant form and shape.

Module number: **AT 602**
Module name: **Introduction to MLA Thesis**
Instructor: **Maria Papafotiou, Angeliki Paraskevopoulou & Aikaterini Gkoltsiou**
Semester Taught: **2**
Credit Value: **ECTS 6**

Independent research of student under the supervision of a staff member of a design subject or study related to landscape architecture. Continuation of module AT 601. Depending on field of research students develop further the literature review, research methodology, record data and site analysis.

Assessment Method:
Submission of written report of completed up to date research work.

SEMESTER THREE

Module number: **AT 409**
Module name: **Cultural and Social Aspects of Landscape Architecture**
Instructor: **Nikos Beopoulos & Angeliki Paraskevopoulou**
Semester Taught: **3**
Credit Value: **ECTS 3**

Social, anthropological and cultural aspects of Landscape Architecture. Review the origin and evolution of the terms and their significance in relation to the landscape through the interchanging relationship between man and nature in antiquity, modern and postmodern times. Symbolic representations of the rural landscape in traditional European fine arts and literature. Recognition and identification of contemporary rural landscapes in Greece, through the interpretation of human sciences. Application of social research methods.

Assessment Method:

Students are expected to submit a written essay and/or design a questionnaire. Studio work and tutorials leading to the submission of design proposal based on public participation.

Module number: **AT 410**
Module name: **Landscape Assessment**
Instructor: **Nikos Beopoulos & Aikaterini Gkoltsiou**
Semester Taught: **3**
Credit Value: **ECTS 3**

The design of urban, suburban, rural or natural areas (human or natural) is analysed at a large scale. The landscape character is assessed. The organisation of various, static and dynamic elements that compose the landscape, their social, financial and cultural composition, as well as their interrelations are studied at a large scale. Study the landscape, the organisation, and design of individual elements, so decisions and actions taken avoid adverse effects on the landscape and environment, green spaces and natural resources protected, and sustainable development supported. In depth analysis of the term "landscape" in various sciences and the European Landscape Convention. Conceptualisation of the rural landscape through agricultural science: the landscape as means of conceptualising agricultural activities and the role of agricultural activities in developing the landscape. Legislative interventions protecting the landscape: case study of the Common Agricultural Policy (CAP), the role of agricultural and environmental measures, and future reform of CAP (2014-2020) in relation to the landscape.

Assessment Method:
Undertake a landscape character assessment of an urban, suburban, rural or natural setting. Prepare an illustrated written report and presentation.

Module number: **AT 505**
Module name: **Advanced Studio Landscape Architecture**
Instructor: **Maria Papafotiou, Angeliki Paraskevopoulou & Aikaterini Gkoltsiou**
Semester Taught: **3**
Credit Value: **ECTS 12**

The module aims at developing thoroughly students' comprehension of the design process. A detailed design proposal for a selected area is developed. Existing knowledge and skills are applied and expanded at all stages of landscape design, site analysis, site planning, concept plans, masterplan, detailed design, planting design, construction plans. A holistic approach is followed, considering all possible aspects that influence the design process, ecological, aesthetic, financial, social, etc. Students must be creative and able to identify opportunities to emphasise and problems to resolve. Emphasis is given to the development of an environmentally sound and sustainable design. Effective visual communication using 3D computer rendered images, models, and animations are encouraged.

Assessment Method:
A series of studio work and tutorials, leading to the submission of a design proposal presented by the student to an open audience (duration of presentation 15 minutes).

Module number: AT 506
Module name: Bioclimatology and Bioclimatic Design of Urban Open Space
Instructor: Ioannis Tsiros, Ioannis Charalampopoulos, Areti Tseliou, Athanasios Kamoutsis & Aristeidis Matsoukis
Semester Taught: 3
Credit Value: ECTS 3

Introduction to bioclimatology and bioclimatic design of urban open spaces. Presents urban microclimate and bioclimate. The urban canopy layer climate. The urban energy balance. Urban heat island and urban cool island. Thermal comfort and sensation. Principles and theory of bioclimatic design. Bioclimatic design as a function of macro-, meso-, and micro- climate and its applications in dry-warm/hot climates with emphasis in the Mediterranean region. Microclimatic conditions and bioclimatic design of urban open spaces. Field monitoring and estimations using advanced techniques. Case studies. Microclimate and bioclimatic design strategies of urban open spaces and urban heat island mitigation strategies. Vegetation, Shading, Evaporative Cooling, Ventilation, Materials and colours, etc. Urban microclimate and bioclimate modelling. Principles of environmental modeling – Environmental models. Analytical, semi-analytical, numerical models, computational fluid mechanics (CFD) models. Software tools and applications in bioclimatic design and evaluation of bioclimatic scenarios. Analysis, evaluation and use of bioclimatic parameters of urban open spaces in urban planning design and in regeneration studies of urban infrastructure (urban complexes).

Assessment Method:
Assessment is based on exams and written report.

Module number: AT 507
Module name: Landscape Management
Instructor: Maria Papafotiou, Aikaterini Gkoltsiou, Georgios Papadoulis, Garyfalia Economou, Konstantinos Bertsouklis, Nikolaos Ntoulas & Ioannis Stringlis
Semester Taught: 3
Credit Value: ECTS 4

Introduction into the management and maintenance of urban green spaces and the development of management plans. The importance of developing management plans for green spaces, their content and structure. Knowledge of the principles and methodologies for managing green spaces. Analyse the interrelationship between design, materials, construction details and maintenance costs. Criteria for the selection and specification of plants. Development of techniques and methods for establishing and managing vegetation in urban green spaces (parks, squares, tree avenues, pedestrianized areas, roof gardens, road islets, embankment) and archaeological sites. Assessment of the safety of large sized trees, methods for assessing tree health, pruning - climbing methods, transplantation of large sized trees. Management of water resources and approach for sustainable management of urban green spaces. Main pests (insects, mites, nematodes, rodents) and diseases of ornamental plants and turf of urban green spaces. Description of the symptoms, cause, biology and ecology of pests and pathogens as well as the epidemiology and contemporary methods of management. Main weed species in anthropogenic environments, archaeological sites, turf, and aquatic environments. Biology, ecology and adaptation. Invasive species. Application of “early identification and immediate response to exotic species” system. Phytosanitary regulations and rules. Sustainable management of weeds, import prevention,

immediate eradication and control, and application of physical and mechanic means of weed management. Targeted application of herbicides.

Assessment Method:
Assessment is based on exams and the development of a management plan for a large scale selected site.

Module number: **AT 603**
Module name: **Introduction to MLA Thesis**
Instructor: **Maria Papafotiou, Angeliki Paraskevopoulou & Aikaterini Gkoltsiou**
Semester Taught: **3**
Credit Value: **ECTS 5**

Independent research of student under the supervision of a staff member of a design subject or study related to landscape architecture. Continuation of modules AT 601 and AT 602. Depending on field of research further record of data and site analysis.

Assessment Method:
Submission of written report of completed up to date research work.

SEMESTER FOUR

Module number: **AT 411**
Module name: **Environmental Impact Studies**
Instructor: **Gerasimos Arapis & Aikaterini Gkoltsiou**
Semester Taught: **4**
Credit Value: **ECTS 3**

Introduction to environmental impact assessment (detailed assessment of the positive and/or negative effect that proposed projects may have on the environment). The effect of human interventions in the landscape. Description of the process of environmental impact assessment (identification, prediction, evaluation, mitigation). Emphasis is given on the quality assessment of the landscape (landscape assessment), both visual and character. Presentation of main methods used. Analysis of the role of landscape architects in the development of an environmental impact assessment.

Assessment Method:
A written essay on the environmental impact assessment of a proposed project in a selected area with emphasis on the landscape and visual impact.

Module number: **AT 412**
Module name: **Legislation and Project Management**
Instructor: **Aikaterini Gkoltsiou & Konstantinos Bertsouklis**
Semester Taught: **4**
Credit Value: **ECTS 1**

Introduction to the responsibilities of landscape architects in public and private projects. Legislation for landscape studies and landscape works (tender documents, general terms and conditions of contract, special conditions of contract, specifications, bill of quantities). Analyse the budget process of landscape projects, quantification of materials, labour works, equipment, and cost estimates.

Application of the legislation and bill of quantities set by the Hellenic Ministry of Environment, Energy and Climate Change.

Assessment Method:
Preparation of tender document for selected site based on the legislation set by the Hellenic Ministry of Environment, Energy and Climate Change.

Module number: **AT 508**
Module name: **Landscape Restoration and Ecological Design**
Instructor: **Aikaterini Gkoltsiou & Nikolaos Ntoulas**
Semester Taught: **4**
Credit Value: **ECTS 4**

Introduce students to the restoration of derelict sites. Describe main categories of and characteristics of derelict sites (quarries, embankments, fire-inflicted areas, landfills, road verges, riparian, industrial, archaeological sites). Methodologies for restoring or regenerating each category are described emphasising advantages and disadvantages. Methodologies and applications of phyto-engineering are also presented.

Assessment Method:
Submission of written essay and development of restoration/regeneration design proposal for selected derelict site.

Module number: **AT 604**
Module name: **MLA Thesis**
Instructor: **Maria Papafotiou, Angeliki Paraskevopoulou & Aikaterini Gkoltsiou**
Semester Taught: **4**
Credit Value: **ECTS 22**

Continuation and finalisation of independent research work undertaken in modules AT 601, AT 602 και AT 603. More specific and depending on field of research, complete assessment and/or statistical analysis of collected data, interpretate results, contrast results with other research work, draw conclusions and develop final drawings (masterplan, detail plans, sections/elevations, 3D drawings, construction plans, planting plans, irrigation/drainage plans). Defence (presentation) to an open audience.

Assessment Method:
Submission of written thesis (including drawings, tables, figures) and defence (a 40 min presentation by the student to an open audience). Assessment is by three members of staff including the supervisor.