Course title	**Garden Constructions II**				
Course code	**GALA2403**				
Course type	**Lectures and practical application**				
Level	Higher Diploma				
Year / Semester	2nd Year / 4th Semester				
Teacher's name	Andreas Meneas Anagiotos				
ECTS	6	**Lectures / week**	1	**Laboratories / week**	2
Course purpose and objectives	The goal of this course is to provide an in-depth study of outdoor elements, their construction materials, properties, and uses. Topics include lighting, various water features such as ponds and fountains, and design based on microclimates. Students will learn to formulate relevant and detailed construction plans using the specialised design software AutoCAD.				
Learning outcomes	Upon completion of the course, the students are expected to: **Theoretical Learning Outcomes:** 1. **Recognise** materials and their properties used in garden constructions, such as wood, rubber, glass, soil, etc. 2. **Identify** the general characteristics of water features in gardens, such as ponds, fountains, etc., and understand their construction methods. 3. **Comprehend** the concept of microclimate and the factors affecting it. **Practical Learning Outcomes:** 4. **Apply** appropriate earthworks in a garden, considering the soil, its properties, and the intended landscape design. 5. **Prepare** construction drawings with the help of design software on a computer, including elevations and sections for various garden constructions, water features, etc. 6. **Monitor** the progress of garden construction projects according to the construction drawings.				
Prerequisites	**Garden Constructions I (GRLN203)**		**Required**		
Course content	**Week 1:** **Lectures** • Support Structures for Plants in the Garden **Laboratory Work** • Design project for tree support structures. **Week 2:** **Lectures**				

- Metal Fences – Wood
- Types of wood, properties, and classifications.
- Durability, maintenance, and protection of wood

Laboratory Work

- Design project for a wooden fence.

Week 3:

Lectures

- Metal Fences – Aluminum

Laboratory Work

- Design project for a metal fence.

Week 5

Lectures:

- Plastics and Rubber
- Synthetic rubber and plastics.
- Strength, toxicity.
- Construction and uses of plastics and rubber.

Week 6

Lectures:

- Placement and Construction of Garden Pavilions and Shade Structures

Week 7

Laboratory Work:

- Construction of Pergolas
- Design and build a wooden pergola.

Week 8

Laboratory Work:

- Water Features
- Practical: Case study (group work) on designing and constructing water features.

Week 9:

Lectures

- Earthworks
- Grading, slope management

Laboratory Work

- Handling of natural soil and groundwater.

Week 10

Lectures:

- Decking
- Suitable types of wood for decking and application methods.

Laboratory Work:

- Construction of a deck.

Week 11 :

Laboratory Work

- Garden Furnishings
- Design and types of garden furniture.

Week 12 :

Laboratory Work

- Lighting Elements
- Other constructions.

Course Breakdown

Week	Teaching Content	Teaching Process
Week 1	Lecture: Introduction to Support Structures for Plants in the Garden Laboratory: Design project for tree support structures	Lecture+ Laboratory
Week 2	Lecture: Metal Fences (Wood) – Types, properties, durability, maintenance, protection Laboratory: Design project for a wooden fence	Lecture+ Laboratory
Week 3	Lecture: Metal Fences (Aluminum) – Characteristics and applications Laboratory: Design project for a	Lecture+ Laboratory

		metal fence	
	Week 5	Plastics and Rubber – Properties, construction uses, and environmental impact	Lecture
	Week 6	Placement and Construction of Garden Pavilions and Shade Structures	Lecture
	Week 7	Construction of Pergolas – Design and build a wooden pergola	Laboratory
	Week 8	Water Features – Group case study and practical design/construction of water features	Laboratory
	Week 9	Earthworks – Grading, slope management Laboratory: Handling natural soil and groundwater	Lecture + Laboratory
	Week 10	Lecture: Decking – Types of wood and application techniques Laboratory: Construction of a wooden deck	Lecture + Laboratory
	Week 11	Garden Furnishings – Design and types of outdoor furniture	Laboratory
	Week 12	Lighting Elements and Other Garden Constructions	Laboratory

Teaching methodology	**<u>Theoretical Instruction:</u>** The theoretical instruction in this course is delivered through structured lectures that introduce the fundamental concepts, material properties, design principles, and technical aspects related to garden structures and outdoor constructions. Teaching emphasises visual aids, real-world examples, and case studies to help students understand material behavior, durability, and design functionality. Students are encouraged to engage through discussion, question-and-answer sessions, and critical evaluation of construction techniques. **<u>Practical Instruction:</u>** The practical instruction focuses on hands-on laboratory work where students apply theoretical knowledge by designing and constructing various garden elements such as fences, pergolas, decks, water features, and lighting systems. Supervised sessions allow students to practice techniques, understand material handling, and complete construction tasks from concept to basic execution, fostering practical competency in outdoor structure building.
Bibliography	**Greek Bibliography** • Συλλογικό έργο (2012). Τα πάντα για την κηπουρική (Σχεδιασμός και στίλ κήπου,

	καλλωπιστικά δέντρα) : Δέντρα, λουλούδια, θάμνοι, οπωρολαχανικά, κήποι, καλλιεργητικές εργασίες, φυτοπροστασία, εξοπλισμός (Η πρακτική εγκυκλοπαίδεια της γεωπονίας). Τέσσερα ΠΙ Α.Ε. ISBN: 9789605610029 • McHoy, Peter (2003), Κατασκευές και γρήγοροι κήποι: Εύκολες, πρακτικές, γρήγορες κατασκευές, Αθήνα, Ίριδα, ISBN 960-7926-34-X • Ingels, Jack E. (2008), Κατασκευές και συντήρηση κήπων, 1η έκδ., Ίων, τ.2, ISBN:978-960-411-352-1. • Braun, Harald (2011), Η διαμόρφωση του κήπου, Μαλλιάρης Παιδεία, ISBN: 9789604574292. **English Bibliography** • Holden, Robert, Liversedge, Jamie (2014). Landscape architecture : An introduction. Laurence King Publishing. ISBN: 9781780672700 • Booth, Norman K., Hiss, James E. (2012). Residential lanscape architecture : Design process for the private residence. 6th Edition. ISBN: 9780132376198
Assessment	• Attendance and course participation: 10% • Practical In-class Assignments 20% • Individual case study 20% • Final practical examination: 50%
	Practical In-class Assignments are designed to assess students' practical skills developed during the laboratory sessions. They focus on the application of theoretical knowledge through small-scale construction tasks, design exercises, and technical detailing of garden structures, completed during class time under supervision. The in-class assignments focus on formative assessment and account for the 20% of the total course grade. The practical aspects of the course are also assessed with the use of a final drawing assignment, which serves as the main summative assessment. The students are called to individually prepare a comprehensive technical drawing or a full construction plan (see final practical examination) for a garden feature. It tests their ability to integrate design principles, material knowledge, and technical drafting skills into a coherent, professional-quality presentation. The final practical examination accounts for the 50% of the final grade and its duration is three academic periods. The individual case study evaluates students' ability to research and apply concepts to a real or hypothetical garden construction project. Students work together to propose solutions, design features (such as pergolas, water elements, or decking), and present their design approach, material choices, and construction methods. This assessment method aims at assessing students' knowledge acquisition as it regards the theoretical aspects of the lesson.
Language	Greek or English