



KES COLLEGE'S RESPONSE TO EXTERNAL EVALUATION COMMITTEE'S REPORT IN  
REGARDS TO THE PROGRAMME OF STUDY

**"GARDENING AND LANDSCAPE DESIGN"**  
**(3 Years/180 ECTS, HIGHER DIPLOMA)"**

**April 2019**



## Table of Contents

	<b>Subject</b>	<b>Page</b>
1.	Response of KES College to External Evaluation Committee's Report	5
2.	Annex "1" – Modified Course Structure "Gardening and Landscape Design" (3 years/180 ECTS, Higher Diploma)	9
3.	Annex "2"- Course Curricula in the new form	13



## **1. FINDINGS OF THE EXTERNAL EVALUATION COMMITTEE**

### **PROGRAM OF STUDY AND HIGHER EDUCATION QUALIFICATIONS**

**1.1** *The content of the program's modules can be improved in addressing sustainability issues in landscape design more widely (green waste management, water conservation, selection of native, drought tolerant species) (page 7).*

#### **Actions taken by KES College**

Please see College's response to paragraph 2.2.

**1.2** *The evaluation and accreditation committee recommends that teaching and administrative staff is encouraged to participate in the Erasmus+ programme (page 7).*

#### **Actions taken by KES College**

The Erasmus + department of the College promotes and announces training opportunities for all members of the teaching and administrative staff, while at the same time it encourages any form of initiative for mobility activities.

Furthermore, the College, during the training sessions with the staff which take place in an annual basis, informs them about the benefits of the Erasmus + and of the opportunities that exist. It encourages the staff to participate in staff mobility programmes in similar or relevant organizations which offer similar to the College's Programmes of Study.

At the moment, there is a scheduled visit of three members of the teaching staff for the purposes of the Erasmus+ programme to one of the partner countries. The teaching staff is part of the School of the Environmental Studies such as the particular programme. In addition, there is a planned visit of nine students, including one student of the under evaluation programme, for intership purposes within the Erasmus+ programme.

## **2. CONCLUSIONS AND SUGGESTIONS OF THE EXTERNAL EVALUATION COMMITTEE**

**2.1.** *An international dimension is in place with student exchanges with similar institutions in other countries. This should be extended to mobility of teaching and administrative personnel. (page 8).*

#### **Actions taken by KES College**

Please see paragraph 1.2 for our response

**2.2.** *Sustainability (green waste management, recycling, water reclamation and conservation, selection of native, drought tolerant plants) and climate change topics should be strengthened and become an integral part of the programme (page 9).*

### **Actions taken by KES College**

Based on the recommendations of the External Evaluation Committee, we have added information to the Content, Expected Learning Outcomes and the Bibliography of the curricula of the following courses, which, due to the modifications made, have new codes:

- ENVR 105 / Ecology
- GRNL 104 / Introduction to Pedology and Fertilizers
- GRLN 114 / Introduction to Botany
- GRLN 113 / Gardening and Floriculture: Annual, Biennial, Perennial, Bulbs, Tubers and Rhizomes
- GRLN 115 / Gardening and Floriculture: Hedges, Bushes, Tree and Climbing Plants
- GRLN 116 / Grasses, Turfs and Mosaic Plants
- GRLN 217 / Automatic Irrigation Systems
- GRLN 223 / Urban Gardening
- GRLN 318 / Analysis, Composition and Sustainable Landscape
- GRLN 315 / Management of Golf Courses, Sports Facilities and Parks
- GRLN 322 / Aromatic and Medicinal Plants
- GRLN 323 / Tropical and Subtropical Plants and Trees
- ENVR 111 / Introduction to Environmental Science
- ENVR 204 / Solid and Liquid Waste Management

The codes for the above courses have been differentiated with respect to the initial application due to the additions made to the curricula. The modified structure of the program with the new codes is shown in Annex "1".

Additions to curricula include topics related to:

- sustainable resource management (such as water management, use of recycled water and green waste),
- Climate change adaptation issues such as sustainable urban landscape design and knowledge and use of indigenous plant species adapted to the Mediterranean climate.

Please see Annex "2" for the list of modifications made to the curricula of the specific Program of Study, which are indicated in yellow highlighted colour.

### 3. JUSTIFICATION OF NUMERICAL EVALUATIONS IN QUALITY STANDARDS AND INDICATORS

#### 3.1. Point 1.2.7

*The online teaching platform (Moodle) is excellent. The following issues should be considered: the menu on the welcome page of the platform should not just be about E-learning; it should be redesigned to include personalized student and staff issues for: email, modules, ECTS credits, registration or de-registration procedures, announcements, e-learning functionality, and access to open source software (page 14).*

#### **Actions taken by KES College**

The College is currently under a tender procedure with other companies for upgrading the current version of the Moodle online platform from version 2.8 to version 3.6, which is inclusive of all of the above.

The Moodle e-learning platform upgrading process of the KES College is expected to be completed in the next few months.

#### 3.2. Point 1.2.7

*Teaching material and methods for this type of vocational education are excellent; there are available books, journals and magazines and access to thematic reference databases which are also suitable for higher levels of education. State-of-the-art surveying equipment (e.g. drones, GPS instruments) should be considered.*

#### **Actions taken by KES College**

Following the recommendations of the External Evaluation Committee, the College has purchased a "drone" device and GPS device for the purposes of the Program of Study.

#### 3.3. Point 2.2

*The content of the program's modules can be improved in addressing sustainability issues more explicitly (green waste management, water conservation) (page 17)*

#### **Actions taken by KES College**

Please see our response in paragraph 2.2.

#### 3.4 Point 2.4

*A final project at the end of semester 6 is worth 6 ECTS credits; we recommend increasing the ECTS value of the final project (page 19 )*

#### **Actions taken by KES College**

The ECTS credits for the course PROJ318 Final Project, were increased from 6 to 8 respectively, with corresponding minor modifications to other courses, as indicated in the modified structure of the program in Annex "1".

### 3.5 Point 2.4

*There is a practical training of 4 weeks duration at the end of the second and fourth semester, each worth 2 ECTS credits. Students also receive extensive practical training in many modules during the duration of the semester. Practical training is not taking place outside of Cyprus. The ECTS credits of the 4-week practical training could be increased (page 19 )*

#### **Actions taken by KES College**

The ECTS credits for both courses of Practical Training I and II were increased from 2 to 4 respectively, with corresponding minor modifications to other courses, as indicated in the modified structure of the program in Annex "1".

## **4 . FINAL REMARKS-SUGGESTIONS**

- 4.1 *A final project at the end of semester 6 is worth 6 ECTS credits; we recommend increasing the ECTS value of the final project (page 27).*

#### **Actions taken by KES College**

Please see our response in question 3.4

- 4.2. *State-of-the-art surveying equipment (e.g. drones, GPS instruments) should be considered (page 27).*

#### **Actions taken by KES College**

Please see our response in question 3.4

*An international dimension is in place with student exchanges with similar institutions in other countries. This should be extended to mobility of teaching and administrative personnel (page 27).*

- 4.3 *An international dimension is in place with student exchanges with similar institutions in other countries. This should be extended to mobility of teaching and administrative personnel (page 27).*

#### **Actions taken by KES College**

Please see our response in paragraph 1.2

- 4.4. *Sustainability (green waste management, recycling, water reclamation and conservation) and climate change topics should be enforced and become an integral part of the programme, rather than being part of elective modules (page 27).*

#### **Actions taken by KES College**

Please see our response in paragraph 2.2

**ANNEX “1”**

**Modified Course Structure “Gardening and Landscape Design” (3 years/180 ECTS, Higher Diploma)**

**Table 2: Course Distribution Per Semester**

No	Course Type	Course Name	Course Code	Periods per week	Period duration	No of weeks/ Academic semester	Total periods/ Academic semester	Number of ECTS
<b>Semester 1</b>								
1.	Compulsory	Health and Safety in Gardening	HESF109	2	55'	14	28	4
2.	Compulsory	Ecology	ENVR105	2	55'	14	28	4
3.	Compulsory	Introduction to Chemistry	CHEM112	2	55'	14	28	4
4.	Compulsory	Introduction to Garden History	GRLN103	2	55'	14	28	4
5.	Compulsory	Introduction to Pedology and Fertilizers	GRLN104	3	55'	14	42	6
6.	Compulsory	Introduction to Botany	GRLN114	5	55'	14	70	8
<b>Total :</b>				<b>16</b>				<b>30</b>
<b>Semester 2</b>								
1.	Compulsory	Design Process in Gardening	GRLN110	3	55'	14	42	4
2.	Compulsory	Professional English	ENGL128	2	55'	14	28	3
3.	Compulsory	Computer Science	COMP137	2	55'	14	28	2
4.	Compulsory	Gardening and Floriculture : Annual, Biennial, Perennial, Bulbs, Tubers and Phizomes	GRLN113	3	55'	14	42	5
5.	Compulsory	Gardening and Floriculture : Hedges, Bushes, Trees and Climbing Plants.	GRLN115	3	55'	14	42	6
6.	Compulsory	Grasses, Turfs and Mosaic Plants	GRLN116	3	55'	14	42	6
7.	Compulsory	Practical Training I	PRCT107	-	55'	14	-	4
<b>Total :</b>				<b>16</b>				<b>30</b>

**Modified Course Structure “Gardening and Landscape Design” (3 years/180 ECTS, Higher Diploma)**

**Table 2: Course Distribution Per Semester (cont.)**

No	Course Type	Course Name	Course Code	Periods per week	Period duration	No of weeks/ Academic semester	Total periods/ Academic semester	Number of ECTS
<b>Semester 3</b>								
1.	Compulsory	Arboriculture	GRLN219	3	55'	14	42	6
2.	Compulsory	Ornamental Trees, Shrubs and Bushes	GRLN214	3	55'	14	42	5
3.	Compulsory	Management of Enemies, Diseases and Weeds	GRLN205	2	55'	14	28	4
4.	Compulsory	Introduction to Computer Aided Design	COMP224	3	55'	14	42	5
5.	Compulsory	Garden Constructions I	GRLN215	2	55'	14	28	4
6.	Compulsory	Garden and Landscaping Drawing Plan	GRLN216	4	55'	14	56	6
<b>Total :</b>				<b>17</b>			<b>30</b>	
<b>Semester 4</b>								
1.	Compulsory	Automatic Irrigation Systems	GRLN217	2	55'	14	28	4
2.	Compulsory	2D Computer Aided Landscaping Design	GRLN221	3	55'	14	42	4
3.	Compulsory	Urban Gardening	GRLN223	2	55'	14	28	3
4.	Compulsory	Garden Constructions II	GRLN217	3	55'	14	42	3
5.	Compulsory	Tree Surgery and Basic Pruning Techniques	GRLN218	2	55'	14	28	3
6.	Compulsory	Final Project I	PROJ209	3	55'	14	42	5
7.	Elective	Elective		2	55'	14	28	4
8.	Compulsory	Practical Training II	PRCT219	0	55'	14	-	4
<b>Total :</b>				<b>17</b>			<b>30</b>	

**Modified Course Structure “Gardening and Landscape Design” (3 years/180 ECTS, Higher Diploma)**

**TABLE 2: COURSE DISTRIBUTION PER SEMESTER (Cont.)**

No	Course Type	Course Name	Course Code	Periods per week	Period duration	No of weeks/ Academic semester	Total periods/ Academic semester	Number of ECTS
<b>Semester 5</b>								
1.	Compulsory	Analysis, Composition and Sustainable Landscape	GRLN318	3	55'	14	42	5
2.	Compulsory	Photorealistic Digital Landscape Design	GRLN313	3	55'	14	42	6
3.	Compulsory	Olericulture and Introduction to Hydroponic Crops	GRLN312	3	55'	14	42	6
4.	Compulsory	Business Management and Planning in Gardening and Landscape Designing	GRLN304	3	55'	14	42	5
5.	Elective	Elective		2	55'	14	28	4
6.	Compulsory	Management of Golf Courses, Sports Facilities and Parks	GRLN315	3	55'	14	42	4
<b>Total :</b>				<b>17</b>				<b>30</b>
<b>Semester 6</b>								
1.	Compulsory	Aromatic and Medicinal Plants	GRLN322	2	55'	14	28	3
2.	Compulsory	Nursery Production and Management	GRLN316	2	55'	14	28	4
3.	Compulsory	Management of Small Size Enterprise	BUSS310	2	55'	14	28	4
4.	Compulsory	Tropical and Subtropical Plants and Trees	GRLN323	2	55'	14	28	4
5.	Compulsory	3D Computer Aided Landscape Modelling	GRLN320	3	55'	14	42	4
6.	Compulsory	Urban Forestry	GRLN319	3	55'	14	42	5
7.	Compulsory	Final Project II	PRCT318	2	55'	14	28	6
<b>Total :</b>				<b>16</b>				<b>30</b>

## LIST OF ELECTIVE COURSES

No	Course Type	Course Name	Course Code	Periods per week	Period duration	No of weeks/ Academic semester	Total periods/ Academic semester	Number of ECTS
1.	Elective	Introduction to Environmental Science	ENVR111	2	55'	14	28	4
2.	Elective	Viticulture - Oenology	BIPR210	2	55'	14	28	4
3	Elective	Solid and Liquid Waste Management	ENVR204	2	55'	14	28	4
4.	Elective	Nutrition and Diet	CBPA326	2	55'	14	28	4
5.	Elective	Food and Society	CBPA325	2	55'	14	28	4
6.	Elective	Introduction to Marketing	MRKT205	2	55'	14	28	4

## ANNEX 2 – COURSE CURRICULA IN THE NEW FORM

### a) List of courses

No.	Code	Course	Page number
<b>Semester 1</b>			
1.	HESF109	Health and Safety in Gardening	16
2.	ENVR105	Ecology	18
3.	CHEM112	Introduction to Chemistry	20
4.	GRLN103	Introduction to Garden History	22
5.	GRLN104	Introduction to Pedology and Fertilizers	24
6.	GRLN114	Introduction to Botany	26
<b>Semester 2</b>			
7.	GRLN110	Design Process in Gardening	28
8.	ENGL128	Professional English	31
9.	COMP137	Computer Science	33
10.	GRLN113	Gardening and Floriculture : Annual, Biennial, Perennial, Bulbs, Tubers and Phizomes	35
11.	GRLN115	Gardening and Floriculture : Hedges, Bushes, Trees and Climbing Plants.	37
12.	GRLN116	Grasses, Turfs and Mosaic Plants	38
13.	PRCT106	Practical Training I	40

List of courses (continued)

No.	Code	Course	Page number
<b>Semester 3</b>			
14.	GRLN219	Arboriculture	41
15.	GRLN214	Ornamental Trees, Shrubs and Bushes	43
16.	GRLN205	Management of Enemies, Diseases and Weeds	45
17.	COMP224	Introduction to Computer Aided Design	47
18.	GRLN215	Garden Constructions I	49
19.	GRLN216	Garden and Landscaping Drawing Plan	52
<b>Semester 4</b>			
20.	<b>GRLN217</b>	Automatic Irrigation Systems	54
21.	GRLN221	2D Computer Aided Landscaping Design	56
22.	GRLN223	Urban Gardening	58
23.	<b>GRLN222</b>	Garden Constructions II	60
24.	GRLN218	Tree Surgery and Basic Pruning Techniques	64
25.	PROJ209	Final Project I	66
26.	<b>PRCT218</b>	Practical Training II	68

List of courses (continued)

No.	Code	Course	Page number
<b>Semester 5</b>			
27.	GRLN318	Analysis, Composition and Sustainable Landscape	69
28.	GRLN313	Photorealistic Digital Landscape Design	71
29.	GRLN312	Olericulture and Introduction to Hydroponic Crops	73
30.	GRLN304	Business Management and Planning in Gardening and Landscape Designing	76
31.	GRLN315	Management of Golf Courses, Sports Facilities and Parks	78
<b>Semester 6</b>			
32.	GRLN322	Aromatic and Medicinal Plants	80
33.	GRLN316	Nursery Production and Management	83
34.	BUSS310	Management of Small Size Enterprise	85
35.	GRLN323	Tropical and Subtropical Plants and Trees	87
36.	GRLN320	3D Computer Aided Landscape Modelling	89
37.	GRLN319	Urban Forestry	91
38.	PRCT318	Final Project II	93
<b>Elective courses</b>			
39.	ENVR111	Introduction to Environmental Science	94
40.	BIPR210	Viticulture - Oenology	96
41.	ENVR204	Solid and Liquid Waste Management	98
42.	CBPA326	Nutrition and Diet	100
43.	CBPA325	Food and Society	102
44.	MRKT205	Introduction to Marketing	104

## b) Course syllabi

1.

Course Title	Health and Safety in Gardening				
Course Code	HESF109				
Course Type	Theoretical and Practical				
Level	Diploma / Higher Diploma				
Year / Semester	1 <sup>st</sup> Year / 1 <sup>st</sup> Semester				
Teacher's Name	Hadjisymeou Panayiotis				
ECTS	4	Lectures / week	2	Laboratories / week	
Course Purpose and Objectives	The main purpose of the course is to elevate the appropriate conditions for a safe and healthy working environment.				
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Recognize the usual dangers which relate to health and safety and the appreciation of risks</li> <li>• Know risk management and improvement measures with regard to health, safety and protection</li> <li>• Present processes for dealing with such incidents in the working environment</li> <li>• Understand the importance of applying the respective rules and regulations within the working environment</li> <li>• The following examples should be mentioned: <ul style="list-style-type: none"> <li>- Health and safety (first aid)</li> <li>- Personal equipment and security at work</li> <li>- Ensuring the appropriate use of professional equipment</li> </ul> </li> </ul>				
Prerequisites	None	Required	None		
Course Content	<ul style="list-style-type: none"> <li>• Climatic conditions <ul style="list-style-type: none"> <li>- Sun</li> <li>- Ultraviolet radiation</li> <li>- Heat conditions</li> <li>- Clothing and protection from the sun</li> <li>- Cold and frostbites</li> <li>- Slippery surfaces</li> </ul> </li> <li>• Equipment and tools <ul style="list-style-type: none"> <li>- Training for the appropriate use</li> <li>- Ways to protect equipment</li> <li>- Sharp tools</li> <li>- Electricity</li> <li>- Maintenance</li> </ul> </li> <li>• Actions and injuries <ul style="list-style-type: none"> <li>- Back pain</li> <li>- Injuries</li> <li>- Hygiene for the hands</li> <li>- Security for the legs</li> </ul> </li> <li>• Chemicals <ul style="list-style-type: none"> <li>- Protection from the mixture of material</li> <li>- Spraying</li> <li>- Insecticides and fungicides</li> <li>- Fertilizers</li> </ul> </li> <li>• Reptiles and other animals <ul style="list-style-type: none"> <li>- Tweaks from reptiles</li> </ul> </li> </ul>				

	<ul style="list-style-type: none"> <li>- Tweaks from wasps, bees and spiders</li> <li>- Seeking for help and vaccines</li> </ul>
Teaching Methodology	Lectures, demonstration, discussion, group exercises and assignments, education visits, guest presentations. The theoretical part will be accompanied by practical exercises and application in the appropriate gardening settings.
Bibliography	<p><b>Greek Bibliography:</b></p> <ul style="list-style-type: none"> <li>• Βλαχάκος, Πέτρος Κ. (2007), Ο θεσμός της αγροτικής ασφάλειας και της αγροφυλακής: Αρχαιότητα, βυζάντιο, νεότεροι χρόνοι, 1η έκδ., Σταμούλης Αντ., ISBN 978-960-6741-55-5.</li> <li>• Σημειώσεις για το θέμα “Ασφάλεια και Υγεία”, Παναγιώτης Χατζησυμεού, KES College 2013</li> <li>• Οδηγός Πρώτων Βοηθειών-Τάγμα Αγίου Ιωάννη,Λευκωσία-2011</li> </ul> <p><b>English Bibliography:</b></p> <ul style="list-style-type: none"> <li>• Hughes, Phil (2008), Easy guide to health and safety, Elsevier, ISBN: 978-0-7506-6954-2.</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Continuous Assessment: <ul style="list-style-type: none"> <li>- Participation: 10%</li> <li>- Workshops, Projects, Tests: 40%</li> </ul> </li> <li>• Final Written Exams: 50%</li> </ul>
Language	Greek

2.

Course Title	Ecology			
Course Code	ENVR105			
Course Type	Theoretical			
Level	Diploma / Higher Diploma			
Year / Semester	1 <sup>st</sup> Year / 1 <sup>st</sup> Semester			
Teacher's Name	Sarris Dimitrios			
ECTS	4	Lectures / week	2	Laboratories / week
Course Purpose and Objectives	The aim of the course is to introduce the students to the science of Ecology for understanding the relationships between the different organisms and the environment and the need for its improvement and protection in order to maintain its sustainability. Furthermore, the factors that threaten ecosystems and biodiversity such as climate change are mentioned to understand the phenomenon			
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Understand what is the science of Ecology</li> <li>• Understand the concept of the ecosystem</li> <li>• Identify the types of biosystems</li> <li>• Understand the need to maintain / manage biodiversity</li> <li>• Understand the importance of sustainability in managing ecosystems</li> <li>• Understand the impact of climate change on ecosystems and biodiversity</li> <li>• Understand the main causes of environmental pollution</li> </ul>			
Prerequisites	None	Required	None	
Course Content	<ul style="list-style-type: none"> <li>• The science of ecology <ul style="list-style-type: none"> <li>- Historical review</li> <li>- Relationships with other sciences</li> </ul> </li> <li>• Environmental deterioration <ul style="list-style-type: none"> <li>- Causes</li> <li>- Ways of improvement</li> </ul> </li> <li>• Adaptation strategies</li> <li>• Dynamics of populations and interactions</li> <li>• The concept of the Ecosystem</li> <li>• Ecological succession and natural selection</li> <li>• Types of bio-systems <ul style="list-style-type: none"> <li>- Differences and similarities between natural and man-made ecosystems</li> </ul> </li> <li>• Biodiversity <ul style="list-style-type: none"> <li>- Preservation / management of biodiversity</li> <li>- Sustainability of biodiversity and ecosystems</li> <li>- Main causes of environmental pollution</li> <li>- Potential Hazards for biodiversity and ecosystems caused by the climate change.</li> </ul> </li> <li>• Main causes of environmental pollution</li> <li>• Their role in destabilizing the environment</li> </ul>			
Teaching Methodology	The content of this course will be taught through: PowerPoint presentations, the use of a board, guided discussions with the active participation of students, individual and team work on the part of students, and the use of a variety of visual and other teaching aids as required for the delivery of each unit. Laboratory demonstrations are also planned.			

Bibliography	<p><b>Greek Bibliography:</b></p> <ul style="list-style-type: none"> <li>• Συλλογικό έργο (2012), Βασικές έννοιες οικολογίας, Κλειδάριθμος, ISBN 978-960-461-458-5.</li> <li>• Κορφιάτης, Κωνσταντίνος (2010), Γενικές αρχές οικολογίας και ελληνικά φυσικά συστήματα, Δίσιγμα, ISBN 978-960-99048-2-7.</li> <li>• Molles, Manuel C. (2009), Οικολογία: Έννοιες, εφαρμογές, Μεταίχμιο, ISBN 978-960-455-535-2.</li> <li>• Βώκου, Δέσποινα (2009), Γενική οικολογία: Μια εισαγωγή, University Studio Press, ISBN 978-960-12-1769-7.</li> <li>• Χατζημπίρος, Κίμων (2007), Οικολογία, οικοσυστήματα και προστασία του περιβάλλοντος, Συμμετρία, ISBN 978-960-266-121-5.</li> </ul> <p><b>English Bibliography:</b></p> <ul style="list-style-type: none"> <li>• Michael L. Cain (2013), Ecology, Sinauer Associates, ISBN: 978-0878939084.</li> <li>• F Stuart Chapin (2011), Principles of Terrestrial Ecosystem Ecology, Springer, ISBN: 978-1441995025.</li> <li>• Thomas E. Lovejoy, Lee Hannah, et al. (2018), Biodiversity and Climate Change: Transforming the Biosphere, ISBN: 978-0300206111.</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Continuous Assessment: <ul style="list-style-type: none"> <li>- Attendance and Participation: 10%</li> <li>- Written Assignments / Projects: 20%</li> <li>- Mid-term examination: 20%</li> </ul> </li> <li>• Final Written Exams: 50%</li> </ul>
Language	Greek

3.

Course Title	Introduction to Chemistry			
Course Code	CHEM112			
Course Type	Theoretical			
Level	Diploma / Higher Diploma			
Year / Semester	1 <sup>st</sup> Year / 1 <sup>st</sup> Semester			
Teacher's Name	Theocharous Spyros			
ECTS	4	Lectures / week	2	Laboratories / week
Course Purpose and Objectives	The aim of the course is to provide students with basic principles of General and Inorganic Chemistry, which are considered necessary for the understanding and consolidation of the knowledge that the Gardening professional must possess.			
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Describe atomic theories</li> <li>• Distinguish the various chemical elements and identify the main features associated with them</li> <li>• List the similarities, differences and peculiarities between acids, bases and salts</li> <li>• Analyze the main properties and characteristics of chemical solutions</li> <li>• Understand and apply the theoretical background governing molecules and the formation of molecular bonds</li> <li>• Explain the chemical structure and properties of water</li> <li>• Understand and explain the chemical basis of water pollution.</li> <li>• Name organic compounds and distinguish the different functional groups</li> </ul>			
Prerequisites	None	Required	None	
Course Content	<p>1. The atom and its structure:</p> <ul style="list-style-type: none"> <li>• Atomic models</li> <li>• Individual and mass number</li> <li>• Modern Atomic theories</li> <li>• Chemical elements, chemical compounds, mixtures</li> </ul> <p>2. Periodic table:</p> <ul style="list-style-type: none"> <li>• Characteristics of the periodic table (groups, periods)</li> <li>• Use of the periodic table (metals – non-metals, chemical electric charge, chemical activity, electronegativity) - experimental demonstration of Sodium in water.</li> </ul> <p>3. Stoichiometry:</p> <ul style="list-style-type: none"> <li>• Solutions - Solubility (experimental dilution demonstrations)</li> <li>• Mass - Volume - Mole</li> <li>• Ways of expressing chemical content</li> </ul> <p>4. Molecules - Chemical Bonds - Chemical Reactions</p> <ul style="list-style-type: none"> <li>• Molecules</li> <li>• Ion</li> <li>• Ionic and covalent bond</li> <li>• Hydrogen bond</li> <li>• Inorganic compounds nomenclature</li> <li>• Chemical reactions (experimental ignition (NH<sub>4</sub>)<sub>2</sub>Cr<sub>2</sub>O<sub>7</sub>)</li> </ul> <p>5. Acids - Bases - pH</p>			

	<ul style="list-style-type: none"> <li>• Acids (Nomenclature, examples from everyday life, classification, chemical reactions, experimental demonstration of metal-acid reaction)</li> <li>• pH (methods of measurement - markers - buffers, experimental pH calculation and neutralization reaction)</li> </ul> <p>6. Water:</p> <ul style="list-style-type: none"> <li>• Chemical structure of water</li> <li>• Water categories</li> <li>• Water pollution</li> <li>• Methods of water softening (experimental demonstration of distillation method)</li> </ul> <p>7. Organic Chemistry:</p> <ul style="list-style-type: none"> <li>• Characteristics of coal</li> <li>• Nomenclature</li> <li>• Typical groups of organic compounds</li> </ul>
Teaching Methodology	The content of this course will be taught through: PowerPoint presentations, the use of a board, guided discussions with the active participation of students, individual and team work on the part of students, and the use of a variety of visual and other teaching aids as required for the delivery of each unit. Laboratory demonstrations are also planned.
Bibliography	<p><b>Greek Bibliography:</b></p> <ul style="list-style-type: none"> <li>• Θεοχάρους, Σπύρος (2014) Ανόργανη χημεία: KESCollege, Λευκωσία.</li> <li>• Ebbing, Darrell D., Gammon, StevenD., (2014) Σύγχρονη Γενική Χημεία: αρχές και εφαρμογές, 10η έκδοση, Εκδόσεις Τραυλός, ISBN 978-618-5061-02-9.</li> <li>• Σπηλιόπουλος, Ιωακείμ (2008) Βασική οργανική χημεία, Σταμούλης Α.Ε., ISBN:978-960-351-751-1.</li> <li>• Σπηλιόπουλος, Ιωακείμ (2010) Εργαστηριακές τεχνικές και πειράματα οργανικής χημείας, Σταμούλης Α.Ε., ISBN:978-960-351-836-5.</li> </ul> <p><b>English Bibliography:</b></p> <ul style="list-style-type: none"> <li>• Timberlake, Karen (2015) Chemistry: an introduction to general, organic and biological chemistry, Global Edition, 12<sup>th</sup> edition, Pearson, ISBN: 978-1292061320.</li> <li>• Graham, Patrick (2017) Organic Chemistry: a very short introduction, Oxford University Press, ISBN: 978-0198759775.</li> <li>• Housecroft, CatherineE (2006), Chemistry: An introduction to organic, inorganic, and physical chemistry, Pearson Prentice Hall, Harlow, England, ISBN: 0-13-1257567-4.</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Continuous Assessment: <ul style="list-style-type: none"> <li>- Attendance and Participation: 10%</li> <li>- Written Assignments/ Projects: 20%</li> <li>- Mid-term examination: 20%</li> </ul> </li> <li>• Final Written Exams: 50%</li> </ul>
Language	Greek

4.

Course Title	Introduction to Garden history			
Course Code	GRLN103			
Course Type	Theoretical			
Level	Diploma / Higher Diploma			
Year / Semester	1 <sup>st</sup> Year / 1 <sup>st</sup> Semester			
Teacher's Name	Kordatos Charalambos			
ECTS	4	Lectures / week	2	Laboratories / week
Course Purpose and Objectives	The main purpose of the course is to introduce the students to the basic evolution and development of gardening in history, help them to become capable to locate this evolution and development through the appropriate lens and historical prospect and introduce them to the aesthetics of cultural development.			
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Understand how gardening has developed from the Roman years until today</li> <li>• Understand the value of preserving the cultural legacy in relation to parks and gardens</li> <li>• Recognize and develop the appropriate design for a contemporary garden</li> <li>• Extend their knowledge beyond the historical context under study and present contemporary garden designs</li> <li>• Locate contemporary gardening within the historical representation of gardening throughout time</li> <li>• Understand the role of a contemporary garden and the need to preserve it</li> </ul>			
Prerequisites	None	Required	None	
Course Content	<ul style="list-style-type: none"> <li>• <b>Introduction</b></li> <li>• <b>Prehistory – until the 6<sup>th</sup> century A.C.</b> <ul style="list-style-type: none"> <li>- Cosmological landscapes</li> <li>- Ancient gardens</li> <li>- Landscapes and architecture</li> <li>- Genius Loci: the atmosphere and spirit of a garden</li> </ul> </li> <li>• <b>6<sup>th</sup> century A.C. – 15<sup>th</sup> century A.C.</b> <ul style="list-style-type: none"> <li>- Western Europe</li> <li>- Spirits and gardens</li> <li>- Mauritius Spain: indelible gardening effect</li> <li>- China: the magnificence of nature in gardens</li> <li>- Japan: the spirit of gardens</li> </ul> </li> <li>• <b>15<sup>h</sup> century A.C.</b> <ul style="list-style-type: none"> <li>- Japan: the time of the Mouromachi</li> <li>- China: the Ming dynasty</li> <li>- Central Asia: the gardens of the Timourides cities</li> <li>- Italy: awkward spirits and widened sights</li> </ul> </li> <li>• <b>16<sup>th</sup> century A.C.</b> <ul style="list-style-type: none"> <li>- Italy: Rome's renaissance</li> <li>- Renaissance of gardens in France and Britain</li> <li>- The early botanical garden: an encyclopedia of plants</li> <li>- The early botanical gardens of Mughal: Persian gardening forms</li> <li>- Japan: the time of the Momoyama</li> </ul> </li> <li>• <b>17<sup>th</sup> century A.C.</b></li> </ul>			

	<ul style="list-style-type: none"> <li>- Japan: the time of the Edo</li> <li>- The Mughal dynasty: sacred symmetries</li> <li>- The Persian gardens of heaven</li> <li>- The Italian style of barroc</li> <li>- The blooming of Dutch landscaping</li> <li>- English gardens: a limited mixture of European styles</li> <li>- French classical gardens: the control of nature</li> <li>• <b>18<sup>th</sup> century A.C.</b> <ul style="list-style-type: none"> <li>- England: the development of the landscaping garden</li> <li>- The landscaping garden in France</li> <li>- China: an impressive illustration of the Gialong gardens</li> <li>- Early American gardens: traditional house gardens</li> </ul> </li> <li>• <b>19<sup>th</sup> century A.C.</b> <ul style="list-style-type: none"> <li>- England: the Victorian gardens and their plants</li> <li>- France: democracies and empires</li> <li>- The architecture of gardening in America</li> </ul> </li> <li>• <b>20<sup>th</sup> century A.C.</b> <ul style="list-style-type: none"> <li>- Quiet time: extremes of wealth and poverty</li> <li>- The new aesthetic of modernism</li> <li>- The environmental art: nature as a tool</li> <li>- Artistic trends in gardening design</li> <li>- Environmental and ecological design</li> <li>- Post-modern gardening</li> </ul> </li> <li>• <b>21<sup>st</sup> century A.C.</b> <ul style="list-style-type: none"> <li>- Ten ideas for the sustainable development of earth</li> </ul> </li> </ul>
Teaching Methodology	The course is theoretical, with lectures, presentations and video clips from very famous gardens as well as on the spot visits to different gardens.
Bibliography	<p><b>Greek Bibliography:</b></p> <ul style="list-style-type: none"> <li>• Σπαντιδάκης, Ιωάννης Γ. (2008), Ελληνικός κήπος: Ιστορία, αισθητική, σχεδιασμός, κατασκευή, 1η έκδ., Αθήνα, Σταμούλη Α.Ε., ISBN 978-960-351-732-0</li> </ul> <p><b>English Bibliography:</b></p> <ul style="list-style-type: none"> <li>• Turner, Tom (2004), Garden History: Philosophy and Design 2000 BC - 2000 AD, Routledge, ISBN: 978-0415317481.</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Continuous Assessment: <ul style="list-style-type: none"> <li>- Participation: 10%</li> <li>- Workshops, Projects, Tests: 40%</li> </ul> </li> <li>• Final Written Exams: 50%</li> </ul>
Language	Greek

5.

Course Title	Introduction to Pedology and Fertilizers				
Course Code	GRLN104				
Course Type	Theoretical and Practical				
Level	Diploma / Higher Diploma				
Year / Semester	1st Year / 1st Semester				
Teacher's Name	Bolla Androniki				
ECTS	6	Lectures / week	2	Laboratories / week	1
Course Purpose and Objectives	<p>Soil is the only natural means for growing plants and this is why its importance in Gardening is enormous.</p> <p>The aim of the course is to teach students the basic functions of the soil (physicochemical properties) and how it can be fertilized for the healthy growth of plants and shrub trees.</p> <p>In addition, students are expected to gain an understanding of the importance of maintaining soil sustainability and the challenges posed to soils due to climate change.</p>				
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Identify the components of soils</li> <li>• Understand the classification of soils</li> <li>• Identify the composition of an ideal soil type</li> <li>• Understand the importance of soils in plant growth and development</li> <li>• Diagnose problematic soils with the help of laboratory analysis,</li> <li>• Understand the main categories of fertilizers and the correct use of each category</li> <li>• Improve problematic soils with the use of suitable fertilizers to improve fertility</li> <li>• Interpret the chemical and mechanical analysis of the soil</li> <li>• maintain the sustainability of the soil and protect it against any pollution (eg nitrate pollution etc.)</li> <li>• describe the impacts of climate change on soils and be aware of countermeasures.</li> </ul>				
Prerequisites	None	Required	None		
Course Content	<ul style="list-style-type: none"> <li>• Introduction to Soil Science</li> <li>• What is soil</li> <li>• Formation of Soils</li> <li>• Effect of exogenous factors on the lithosphere</li> <li>• Soil components</li> <li>• Colloidal systems</li> <li>• Minerals of clay</li> <li>• Reaction and soil texture</li> <li>• Sampling: soil analysis (mechanical, chemical, biological)</li> <li>• Porosity / color / soil consistency</li> <li>• Moving soil material</li> </ul>				

	<ul style="list-style-type: none"> <li>• Soil Types</li> <li>• Fertilizers</li> <li>• Sustainability of soil and tackling soil pollution and degradation</li> <li>• Impact of climate change on soils and counter measures</li> </ul>
Teaching Methodology	The content of this course will be taught through: PowerPoint presentations, the use of a board, guided discussions with the active participation of students, individual and team work on the part of students, and the use of a variety of visual and other teaching aids as required for the delivery of each unit. Practical training in the Soil Laboratory will also be performed and educational visits at places/organizations of interest.
Bibliography	<p><b>Greek Bibliography:</b></p> <ul style="list-style-type: none"> <li>• Αναλογίδης, Δημήτριος Α. (2000), Έδαφος θρεπτικά στοιχεία και φυτική παραγωγή, 1η έκδ., Αθήνα, ΑγροΤύπος ΑΕ, ISBN 960-7667-15-8</li> <li>• Προδρόμου, Κωνσταντίνος Π. (2011), Εφαρμοσμένη εδαφολογία: Γένεση εδαφών, 1η έκδ., Θεσσαλονίκη, Ζήτη, ISBN 978-960-456-301-2</li> <li>• Πασχαλίδης, Χρήστος (2006), Λιπασματολογία: Εργαστηριακές ασκήσεις: Γονιμότητα εδαφών, θρέψη φυτών, φυλλοδιαγνωστική, λιπάσματα, ποιοτικά χαρακτηριστικά σοδειάς, Αθήνα, Έμβρυο, ISBN 960-8002-41-9,</li> <li>• Πασχαλίδης, Χρήστος (2005), Εδαφολογία: Εργαστηριακές ασκήσεις, 1η έκδ., Αθήνα, Έμβρυο, ISBN 960-8002-38-9</li> <li>• Brady, Nyle. C. (2015), Εδαφολογία: Η φύση και οι ιδιότητες των εδαφών, Έμβρυο, ISBN 978-960-8002-62-3.</li> </ul> <p><b>English Bibliography:</b></p> <ul style="list-style-type: none"> <li>• Munoz, Maria Angeles; Zornoza, Raúl (2018), Soil Management and Climate Change: Effects on Organic Carbon, Nitrogen Dynamics, and Greenhouse Gas Emissions, ISBN: 978-0128121283 .</li> <li>• Rakshit, Amitava; Sarkar, Binoy; Abhilash, Purushothaman (2018), Soil Amendments for Sustainability: Challenges and Perspectives, ISBN-13: 978-0815370772.</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Continuous Assessment: <ul style="list-style-type: none"> <li>- Participation: 10%</li> <li>- Written Assignments / Tests: 30%</li> <li>- Practical examination: 10%</li> </ul> </li> <li>• Final Written Exams: 50%</li> </ul>
Language	Greek

6.

Course Title	Introduction to Botany				
Course Code	GRLN114				
Course Type	Theoretical and Practical				
Level	Diploma / Higher Diploma				
Year / Semester	1st Year / 1st Semester				
Teacher's Name	Kordatos Charalambos				
ECTS	8	Lectures / week	3	Laboratories / week	2
Course Purpose and Objectives	<p>The aim of the course is to introduce students to the basic concepts of Botany, the characteristics of living and non-living organisms and the internal phenomena of plant life. The course deals initially with the external and internal Morphology of Plants and further on with the Physiology of Plants.</p> <p>The students will learn about the mechanisms and structures the plants develop in order to cope with climate change.</p>				
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Understand the basic concepts of Botany</li> <li>• Identify the characteristics of living and non-living organisms and their properties</li> <li>• Understand the basic traits of plant organisms</li> <li>• Describe the main categories of plants</li> <li>• Distinguish the cells, tissues and organs of the plants</li> <li>• Understand the fertilization process of plants and the anomalies that may occur</li> <li>• Describe the structure of the cell</li> <li>• Understand the mechanism of uptake - secretion and movement of substances</li> <li>• Understand the process of photosynthesis</li> <li>• Understand the transpiration mechanism</li> <li>• Understand the physiology of plant growth and development</li> <li>• Experiment with plants and draw the right conclusions regarding phototropism, photoperiodism, heredity and production of new species</li> <li>• Understand the mechanisms and structures that plants develop through their evolution in order to cope and survive under the influence of climate change.</li> </ul>				
Prerequisites	None	Required	None		
Course Content	<p>1. Elements of Plant Morphology</p> <ul style="list-style-type: none"> <li>• Living and non-living organisms, properties</li> <li>• Traits of plant organisms</li> <li>• Categories of plants</li> <li>• Plant cytology</li> <li>• Histology of plants</li> <li>• Plant organography</li> <li>• Reproductive organs of plants</li> <li>• Fruits and seeds, fertilization</li> <li>• Plant life cycle and genetic abnormalities</li> </ul> <p>2. Elements of Physiology</p> <ul style="list-style-type: none"> <li>• Living and behavioural conditions of plants</li> <li>• Recycling of matter in plants</li> <li>• The cell as an osmotic system</li> <li>• Intake-secretion-movement of substances</li> </ul>				

	<ul style="list-style-type: none"> <li>• Nutrients</li> <li>• Photosynthesis</li> <li>• Composition of organic substances</li> <li>• Transpiration - Transpiration mechanism</li> <li>• Nutrition of heterophytes (saprophytes, parasites)</li> <li>• Physiology of growth and movement</li> <li>• Diversification and formation of plants</li> <li>• Periodicity</li> <li>• Growth and development</li> <li>• Heredity</li> <li>• Mutations, generation of new species.</li> <li>• <b>Plant Mechanisms to tackle Climate Change.</b></li> </ul>
Teaching Methodology	The content of this course will be taught through: PowerPoint presentations, the use of a board, guided discussions with the active participation of students, individual and team work on the part of students, and the use of a variety of visual and other teaching aids as required for the delivery of each unit. Practical training in the Botany Laboratory and in other suitable facilities of KES College will also be performed.
Bibliography	<p><b>Greek Bibliography</b></p> <ul style="list-style-type: none"> <li>• Ελευθερίου, Ε. Π. (2007), Βοτανική: Βιολογία φυτικού κυττάρου και ιστολογία φυτών, 1η έκδ., Θεσσαλονίκη, University Studio Press, ISBN 978-960-12-1584-6.</li> <li>• Μποζαμπαλίδης, Αρτέμιος (2011), Βοτανική: Μορφολογία και ανατομία φυτών: Εργαστηριακές ασκήσεις, 1η έκδ., Θεσσαλονίκη, University Studio Press, ISBN 978-960-12-2048-2.</li> <li>• Γεννάδιος, Π. Γ. (2005), Λεξικόν φυτολογικόν, Αθήνα, Δαμιανός.</li> <li>• Συλλογικό έργο (2005), Γενική βοτανική: Η μορφολογία, η ανατομία και η φυσιολογία των ανώτερων φυτών, 1η έκδ., Αθήνα, Έμβρυο, ISBN 960-8002-34-6.</li> <li>• Συλλογικό έργο (μετάφραση Παναγιώτης Αποστολάκος, Κωνσταντίνος Βλαχονάσιος, Βασίλειος Γαλάτης, Κυριάκος Γεωργίου, Γεώργιος Γραμματικόπουλος, κ.ά.) (2012), Φυσιολογία φυτών, Πέμπτη αμερικάνικη έκδοση, 1η έκδ., Αθήνα, Utoria, ISBN 978-960-98123-9-9.</li> <li>• Τσέκος, Ιωάννης Β. (2004), Φυσιολογία φυτών: Το κύτταρο ως ενεργητικό σύστημα: Φαινόμενα μεταφοράς: Μεταβολισμός: Αύξηση και ανάπτυξη: Μοριακή φυσιολογία, 2η έκδ., Θεσσαλονίκη, Κυριακίδη Αφοί, ISBN 960-343-771-9.</li> <li>• Τσέκος, Ιωάννης Β. (2006), Εισαγωγή στη φυσιολογία φυτών, 1η έκδ., Θεσσαλονίκη, Κυριακίδη Αφοί, ISBN 960-343-856-1</li> <li>• Irene Ridge, μετάφραση Γιάννης Μανέτας (2005), Φυσιολογία φυτών, 1η έκδ., Αθήνα, Ίων, ISBN 960-411-522-7.</li> <li>• Irene Ridge, μετάφραση Γιάννης Μανέτας (2005), Φυσιολογία φυτών, 1η έκδ., Αθήνα, Ίων, ISBN 960-411-522-7.</li> </ul> <p><b>English Bibliography</b></p> <ul style="list-style-type: none"> <li>• <b>Andjelkovic, Violeta (2018), Plant, Abiotic Stress and Responses to Climate Change, ISBN: 978-1-78923-123-6.</b></li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Continuous Assessment: <ul style="list-style-type: none"> <li>- Participation: 10%</li> <li>- Written Assignments / Tests: 30%</li> <li>- Practical examination: 10%</li> </ul> </li> <li>• Final Written Exams: 50%</li> </ul>
Language	Greek

7.

Course Title	The Design Process in Landscaping Design				
Course Code	GRLN110				
Course Type	Theoretical and Practical				
Level	Diploma / Higher Diploma				
Year / Semester	1 <sup>st</sup> Year / 2 <sup>nd</sup> Semester				
Teacher's Name	Panayiotou Eleni				
ECTS	4	Lectures / week	1	Laboratories / week	2
Course Purpose and Objectives	<p>Through a variety of creative and practical activities, students are taught the knowledge, understanding and skills needed to engage in an iterative process of landscape designing leading towards making.</p> <p>This course is designed to build and enhance student's 'Designer Thinking' allowing them to produce detailed and of high quality, novel design proposals, presented in a professional manner. From a more practical perspective, the course guides students to create an exemplar, high quality, complete professional portfolio layout which can form the basis for the development of their life-long design portfolio.</p>				
Learning Outcomes	<p>The course is designed to enhance 4 main skills: (1) collecting information, validating their authority and conducting in-depth analysis of existing landscaping designs and relevant issues; (2) using their newly gained knowledge, to create a <b>range of different, innovative, new ideas</b> taking under consideration technical and practical requirements; (3) supporting a constant evaluation and modification process throughout their work, allowing them to learn from each experience and always aim for progression and development (life-long learning); (4) follow simple guidelines to build a quality digital portfolio using Microsoft Power Point.</p> <p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• develop realistic design proposals as a result of the exploration of design opportunities and users' needs, wants and values;</li> <li>• use imagination, experimentation and synthesis when designing a range of different, innovative, new ideas;</li> <li>• develop the skills to critique and refine their own ideas whilst designing and making;</li> <li>• communicate their design ideas and decisions using different free hand media and techniques, as appropriate for different audiences at key points in their designing;</li> <li>• develop decision making skills;</li> <li>• develop an understanding that there is a broad amount of different materials, components and technologies and practical skills available to develop high quality, imaginative and functional prototypes and/or ideas/products;</li> <li>• be ambitious and open to explore and take design risks in order to stretch the development of design proposals, avoiding clichéd or stereotypical responses;</li> </ul>				

	<ul style="list-style-type: none"> <li>• consider the costs, commercial viability and marketing of their ideas/products;</li> <li>• demonstrate their understanding of safe working practices in the design and making of their ideas;</li> <li>• use key landscaping design terminology including those related to: designing, innovation and communication; plants, materials and technologies; making, manufacture and production; critiquing, values and ethics;</li> <li>• Understand and be able to use simple graphic design tips to presenting their work;</li> <li>• Develop good working skills of the Microsoft Power Point Publication software.</li> </ul>		
Prerequisites	None	Required	None
Course Content	<p>The design process. What each stage is, when it is needed and methods for their successful completion. This includes the following stages:</p> <ul style="list-style-type: none"> <li>• design problem</li> <li>• design brief</li> <li>• design specification</li> <li>• design analysis (minimum of 6 examples)</li> <li>• initial ideas (minimum of 8 novel ideas)</li> <li>• development of ideas (minimum of 2 different ideas)</li> <li>• final idea (minimum of 1 novel idea)</li> <li>• plan of making and costing</li> <li>• prototype</li> <li>• evaluation</li> </ul> <p>Freehand and Technical drawing techniques</p> <ul style="list-style-type: none"> <li>• creating generalised free hand sketches (initial ideas)</li> <li>• showing details using zoomed in balloons</li> <li>• annotating free hand sketches</li> <li>• isometric freehand 3D sketching of basic shapes</li> <li>• rendering 3D isometric shapes</li> <li>• orthographic drawings</li> <li>• placing measurements on technical drawings</li> </ul> <p>Creating a computer-based portfolio (using PowerPoint or Publisher)</p> <ul style="list-style-type: none"> <li>• basic elements of the overall design layout/ template</li> <li>• colours, fonts, sizes, consistency</li> <li>• use of images and colours</li> </ul> <p>Making of a prototype</p> <ul style="list-style-type: none"> <li>• Correct transfer of idea into a prototype</li> <li>• Accuracy</li> <li>• Quality of final product/ idea/ implementation</li> <li>• Quality of presentation of final product</li> <li>• Evaluation of final product/ solution</li> <li>• Suggestions for improvements</li> <li>• Maintenance plan</li> </ul>		

Teaching Methodology	The content of this course will be taught through: PowerPoint presentations, the use of a board, guided discussions with the active participation of students, individual and team work on the part of students, and the use of a variety of visual and other teaching aids as required for the delivery of each unit.
Bibliography	<p><b>Greek Bibliography:</b></p> <ul style="list-style-type: none"> <li>• Γεωργιάννου, Β. Ν. (2000), Χρήση γεωτεχνικών οργάνων, οργανομετρήσεις, Παρισιάνου Μαρία Γρ., ISBN 960-340-170-6, ISBN-13 978-960-340-170-4.</li> </ul> <p><b>English Bibliography:</b></p> <ul style="list-style-type: none"> <li>• Reid G., 2002. Landscape Graphics: Plan, Section, and Perspective Drawing of Landscape Spaces Revised ed. Edition.</li> <li>• Norman K. Booth and James E. 2018. Hiss, Residential Landscape Architecture: Design Process for the Private Residence (7th Edition) (What's New in Trades &amp; Technology), 7th Edition</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Class Participation: 10%</li> <li>• Individual Project/ portfolio: 35%</li> <li>• Presentation: 15%</li> <li>• Written Test: 40%</li> </ul>
Language	Greek

8.

Course Title	Professional English			
Course Code	ENGL128			
Course Type	Theoretical			
Level	Diploma / Higher Diploma			
Year / Semester	1 <sup>st</sup> Year / 2 <sup>nd</sup> Semester			
Teacher's Name	Panteli Maria			
ECTS	4	Lectures / week	2	Laboratories / week
Course Purpose and Objectives	<p>The aim of the course is to demonstrate how English is used in real-life situations of Gardening and Landscaping professionals. It encourages students to use English in meaningful professional contexts. It is designed to build students' ability to communicate their ideas, both orally and in writing, with carefully selected content to motivate students and stimulate learning. This course adopts a communicative approach to language learning, offering students extensive practice in developing their competence in the language. It uses an integrated approach to three-language skills (reading, speaking and writing) combining functions, structures, vocabulary, intonation and communication skills.</p>			
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Gain knowledge and abilities to interact with others in English</li> <li>• Gain the vocabulary needed to further progress in their learning</li> <li>• Write short papers with the necessary skills to communicate their ideas clearly</li> <li>• Express themselves orally with confidence</li> <li>• Understand reading texts and recognize different approaches to writing</li> <li>• Demonstrate proof-reading skills in short essays</li> </ul>			
Prerequisites	None	Required	None	
Course Content	<p><b>Grammar:</b></p> <ul style="list-style-type: none"> <li>• Present Simple Vs Present Continuous</li> <li>• Past Simple Vs Past Continuous</li> <li>• Passive Voice</li> <li>• Possessive Adjectives and Pronouns</li> <li>• Modal Verbs</li> </ul> <p><b>Vocabulary:</b></p> <ul style="list-style-type: none"> <li>• Verbs and Expressions</li> <li>• Expressions related to meetings</li> <li>• Words and Verbs related to communication</li> <li>• Adjectives and Expressions</li> <li>• Gardening and Landscaping language and terms</li> <li>• Verbs and Expressions</li> <li>• Expressions related to Gardening and Landscaping reviews</li> <li>• Words and Verbs related to Gardens, Landscaping and nurseries</li> </ul> <p><b>Writing skills:</b></p> <ul style="list-style-type: none"> <li>• Reviewing the Parts of Speech</li> </ul>			

	<ul style="list-style-type: none"> <li>• English Communication</li> <li>• The Writing Process, The Shape of Writing</li> <li>• Telling a Story</li> <li>• Working with Descriptive Details</li> <li>• Using Examples, Comparing and Contrasting</li> <li>• Organizing your Thinking</li> <li>• Writing Introductions and Conclusions</li> <li>• Using Transitional Expressions</li> <li>• Revising Word Choice</li> <li>• Persuasive Writing about food and Restaurants</li> <li>• Using and Citing Sources</li> </ul>
Teaching Methodology	The course consists of lectures, discussions and practice using the main text for the course, as well as online and other visual and other types of teaching aids.
Bibliography	<p><b><i>English Bibliography</i></b></p> <ul style="list-style-type: none"> <li>• Neil O' Sullivan, James D. Libbin (2011), Career Paths: Agriculture, Express Publications, ISBN: 978-1-78098-378-3</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Continuous Assessment: <ul style="list-style-type: none"> <li>- Participation: 10%</li> <li>- Written Assignments/ Tests: 30%</li> <li>- Practical examination: 10%</li> </ul> </li> <li>• Final Written Exams: 50%</li> </ul>
Language	Greek

9.

Course Title	Computers I				
Course Code	COMP137				
Course Type	Theoretical - Laboratories				
Level	Diploma				
Year / Semester	1 <sup>st</sup> Year / 2 <sup>nd</sup> Semester				
Teacher's Name	Georgiades Michalis				
ECTS	2	Lectures / week	2	Laboratories / week	
Course Purpose and Objectives	The main purpose of the course is to introduce students to the basic computer functions, skills and applications.				
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Use the computers and complete some of the basic functions</li> <li>• Understand the structure and definitions of computers</li> <li>• Understand the operating system of computers</li> <li>• Create, open, store, locate and copy files</li> <li>• Use the basic functions of electronic files</li> <li>• Apply, use and adapt electronic files</li> </ul>				
Prerequisites	None	Required	None		
Course Content	<p><b>Course outline</b></p> <ul style="list-style-type: none"> <li>• <b>Basic computer knowledge</b> <ul style="list-style-type: none"> <li>- Introduction to the basic concepts of computers</li> <li>- Computer parts</li> <li>- Computing machinery and equipment</li> <li>- Software</li> <li>- Programs</li> <li>- 'In' and 'out' devices</li> <li>- Memory (ram, rom)</li> <li>- Files and their basic functions (creation, storage, transfer)</li> <li>- Functional systems, windows and the windows environment</li> <li>- Using windows, menus, explorer, find, help, print, shortcuts</li> </ul> </li> <li>• <b>Basic internet knowledge</b> <ul style="list-style-type: none"> <li>- Internet communication</li> <li>- Different parts of the internet</li> <li>- How to read internet addresses (URL – Uniform Resource Locator)</li> <li>- How to read email addresses</li> <li>- Connection</li> </ul> </li> </ul>				
Teaching Methodology	The content of this course will be taught through: PowerPoint presentations, the use of a board, guided discussions with the active participation of students, individual and team work on the part of students, and the use of a variety of visual and other teaching aids as required for the delivery of each unit. Laboratory demonstrations are also planned.				
Bibliography	<b>Greek Bibliography:</b>				

	<ul style="list-style-type: none"> <li>• Χρήστου, Χρήστος (2011), Το ολοκληρωμένο βιβλίο διδασκαλίας ECDL, 9η έκδοση, EduCYBER CC Co Ltd, ISBN: 9789963888085.</li> <li>• Νεγρεπόντης, Νικόλας (2001), Ψηφιακός κόσμος, Εκδόσεις Καστανιώτη, ISBN: 9600314616.</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Continuous Assessment: <ul style="list-style-type: none"> <li>- Participation: 10%</li> <li>- Workshops, Projects, Tests: 40%</li> </ul> </li> <li>• Final Written Exams: 50%</li> </ul>
Language	Greek

10.

Course Title	Gardening and Floriculture: Annual, Biennial, Perennial, Bulbs, Tubers and Phizomes			
Course Code	GRLN113			
Course Type	Theoretical and Practical			
Level	Diploma / Higher Diploma			
Year / Semester	1st Year / 2nd Semester			
Teacher's Name	Antoniou Efrosini			
ECTS	6	ECTS	6	ECTS 6
Course Purpose and Objectives	The aim the course is to is to provide students with the basic knowledge and skills regarding the cultivation, preservation and protection of various ornamental plants, harvested flowers, bulbs, tubers and rhizomes and for grooming gardens and parks			
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Understand the correct way of planting and placing for annual spring and summer plants as well as perennial herbs</li> <li>• Understand the correct way of planting and placing for bulbous, tuberous and rhizomatous plants according to their planting season</li> <li>• Distinguish the different types of indoor plants and be able to maintain them</li> <li>• <b>Familiaze themselves with indigenous and Mediterranean-grown plants belonging to this category.</b></li> </ul>			
Prerequisites	GRLN108	Prerequisites	GRLN108	
Course Content	<ul style="list-style-type: none"> <li>• Annual spring plants</li> <li>• Annual summer plants</li> <li>• Perennial herbaceous plants</li> <li>• Bulbs, tubers and rhizomes</li> <li>• Indoor Plants</li> <li>• <b>Annual Spring, Thermae, Perennial Perennial, Bulbous, Perennial, Rhizomatous: indigenous and those adapted to the Mediterranean climate.</b></li> </ul>			
Teaching Methodology	The content of this course will be taught through: PowerPoint presentations, the use of a board, guided discussions with the active participation of students, individual and team work on the part of students, and the use of a variety of visual and other teaching aids as required for the delivery of each unit. Laboratory demonstrations are also planned. Training visits will also take place to places where students can observe the plants, identify them, and take care of their maintenance			
Bibliography	<p><b>Greek Bibliography:</b></p> <ul style="list-style-type: none"> <li>• Καρράς, Γιώργος (2006), Ετήσια, πολυετή και βολβώδη: Η παραγωγή, η φροντίδα και η χρήση τους στην κηποτεχνία, 1η έκδ., Αθήνα, ΑγροΤύπος ΑΕ, ISBN 960-7667-25-5.</li> <li>• Waite, Ray, μετάφραση Θανάσης Παπούλιας (2003), Ανθοκομία: Σε γλάστρες και ζαρντινιέρες, Αθήνα, Ψύχαλος, ISBN 960-7920-15-5.</li> <li>• Δάρρας, Αναστάσιος (2010), Κήποι, βεράντες, οροφώκηποι: Ανθοκομία - Κηποτεχνία καλλωπιστικών Φυτών στο αστικό περιβάλλον, Έμβρυο, ISBN 978-960-8002-57-9.</li> <li>• <b>Τσιντίδης, Τάκης (1995), Τα Ενδημικά Φυτά της Κύπρου, ISBN: 9963-42-052-4 / Αγγλική έκδοση: 9963-42-067-2.</b></li> </ul>			
Assessment	<ul style="list-style-type: none"> <li>• Continuous Assessment:</li> </ul>			

	<ul style="list-style-type: none"><li>- Participation: 10%</li><li>- Written Assignments/ Tests: 30%</li><li>- Practical examination: 10%</li><li>• Final Written Exams: 50%</li></ul>
Language	Greek

11.

Course Title	Gardening and Floriculture: Hedges, Bushes, Trees and Climbing Plants			
Course Code	GRLN115			
Course Type	Theoretical and Practical			
Level	Diploma / Higher Diploma			
Year / Semester	1st Year / 2nd Semester			
Teacher's Name	Antoniou Efrosini			
ECTS	6	ECTS	6	ECTS 6
Course Purpose and Objectives	The aim the course is to is to provide students with the basic knowledge and skills regarding the cultivation, preservation and protection of various ornamental plants, harvested flowers, bulbs, tubers and rhizomes and for grooming gardens and parks			
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Understand the correct way of planting and placing for annual spring and summer plants as well as perennial herbs</li> <li>• Understand the correct way of planting and placing for bulbous, tuberous and rhizomatous plants according to their planting season</li> <li>• Distinguish the different types of indoor plants and be able to maintain them</li> <li>• Familiarize themselves with indigenous and Mediterranean-grown plants belonging to this category.</li> </ul>			
Prerequisites	GRLN108	Prerequisites	GRLN108	
Course Content	<ul style="list-style-type: none"> <li>• Annual spring plants</li> <li>• Annual summer plants</li> <li>• Perennial herbaceous plants</li> <li>• Bulbs, tubers and rhizomes</li> <li>• Indoor Plants</li> <li>• Hedges, Bushes, Trees and Climbing Plants: indigenous and adapted to the Mediterranean climate</li> </ul>			
Teaching Methodology	The content of this course will be taught through: PowerPoint presentations, the use of a board, guided discussions with the active participation of students, individual and team work on the part of students, and the use of a variety of visual and other teaching aids as required for the delivery of each unit. Laboratory demonstrations are also planned. Training visits will also take place to places where students can observe the plants, identify them, and take care of their maintenance			
Bibliography	<p><b>Greek Bibliography:</b></p> <ul style="list-style-type: none"> <li>• Σάββας, Δημήτριος (2003), Γενική ανθοκομία / 1η έκδ., Έμβρυο, Αθήνα, ISBN 960-8002-15-X</li> <li>• Τσιντίδης, Τάκης (1995), Τα Ενδημικά Φυτά της Κύπρου, ISBN: 9963-42-052-4 / Αγγλική έκδοση: 9963-42-067-2.</li> </ul>			
Assessment	<ul style="list-style-type: none"> <li>• Continuous Assessment: <ul style="list-style-type: none"> <li>- Participation: 10%</li> <li>- Written Assignments/ Tests: 30%</li> <li>- Practical examination: 10%</li> </ul> </li> <li>• Final Written Exams: 50%</li> </ul>			
Language	Greek			

12.

Course Title	Grasses, Turfs and Mosaic Plants			
Course Code	GRLN116			
Course Type	Theoretical and Practical			
Level	Diploma / Higher Diploma			
Year / Semester	1st Year / 2nd Semester			
Teacher's Name	Bolla Androniki			
ECTS	6	ECTS	6	ECTS 6
Course Purpose and Objectives	The aim of the course is to give students the basic knowledge and skills regarding the creation, cultivation, protection and maintenance of Grasses, Turfs and Mosaic Plants			
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Identify the different types of grass and mosaic plants</li> <li>• Identify the different types of grafts</li> <li>• Identify the different types of grass seed mixtures</li> <li>• Identify the different types of simple grass seeds</li> <li>• Properly plant grasses, grow and maintain them</li> <li>• Protect grass plants from various enemies and diseases</li> <li>• Identify the different types of synthetic lawn</li> <li>• Select the appropriate type of synthetic lawn and place it appropriately in the fitting place</li> <li>• Understand the importance of selecting grass and soil cover that have lower water requirements.</li> </ul>			
Prerequisites	GRLN108	Prerequisites	GRLN108	
Course Content	<p>Lawns</p> <ul style="list-style-type: none"> <li>• mediterranean grass mixes</li> <li>• grass mixes for sports fields</li> <li>• simple seeds</li> <li>• grass with grafts</li> <li>• ready natural grass</li> <li>• synthetic grass</li> </ul> <p>Mosaic Plants</p> <ul style="list-style-type: none"> <li>• Alternanthera</li> <li>• Achillea</li> <li>• Vinca</li> <li>• Cyclamen</li> <li>• Mesembryanthemum</li> <li>• Ophiopogon</li> <li>• Cineraria</li> <li>• Lobularia</li> <li>• Medicago</li> <li>• Rosemary</li> <li>• Lavender</li> <li>• Lippia</li> <li>• Ivy</li> <li>• Sandolina</li> <li>• Carissa</li> <li>• Pelargonium</li> <li>• Gazania</li> </ul>			
Teaching Methodology	The content of this course will be taught through: PowerPoint presentations, the use of a board, guided discussions with the active participation of students, individual and team work on the part of students, and the use of a			

	variety of visual and other teaching aids as required for the delivery of each unit. Laboratory demonstrations are also planned.
Bibliography	<p><b>Greek Bibliography:</b></p> <ul style="list-style-type: none"> <li>• Σάββας, Δημήτριος (2003), Γενική ανθοκομία / 1η έκδ., Έμβρυο, Αθήνα, ISBN 960-8002-15-X.</li> <li>• Pycraft, David (μετ. Θανάσης Παπούλιας) (1990), Γκαζόν: Φυτά εδαφοκάλυψης: Τα ζιζάνια και η καταπολέμησή τους, Ψύχαλος, ISBN 960-7920-25-2.</li> <li>• Stell, Elizabeth P. (2000), Τα μυστικά του γόνιμου εδάφους: Ο οδηγός οργανικής καλλιέργειας, λίπανσης και δημιουργίας υγιούς και γόνιμου εδάφους για τον κήπο και το γκαζόν σας, Ψύχαλος, ISBN 960-7920-49-X.</li> </ul> <p><b>English Bibliography:</b></p> <ul style="list-style-type: none"> <li>• Penick, Pam (2013), Lawn Gone!: Low-Maintenance, Sustainable, Attractive Alternatives for Your Yard, ISBN 978-1-60774-314-9.</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Continuous Assessment: <ul style="list-style-type: none"> <li>- Participation: 10%</li> <li>- Written Assignments / Tests: 30%</li> <li>- Practical examination: 10%</li> </ul> </li> <li>• Final Written Exams: 50%</li> </ul>
Language	Greek

13.

Course Title	Practical Training I				
Course Code	PRCT107				
Course Type	Practical				
Level	Diploma / Higher Diploma				
Year / Semester	1 <sup>st</sup> Year / 2 <sup>nd</sup> Semester				
Teacher's Name	Kordatos Chalarambos				
ECTS	2	ECTS	2	ECTS	2
Course Purpose and Objectives	The Practical Training course in gardening aims to consolidate the theoretical knowledge acquired by the students during the first year of their studies and help them build practical skills in the specialty of the gardener.				
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Practically apply the theories that they have been taught during the first year of their studies</li> <li>• Acquire professional experience</li> <li>• Acquire confidence as gardeners</li> <li>• Develop communication skills with colleagues</li> <li>• Consolidate their knowledge with regard to the subject of gardening <ul style="list-style-type: none"> <li>• Acquire more practical skills in the subject of gardening</li> </ul> </li> </ul>				
Prerequisites	None	Prerequisites	None		
Course Content	The students are employed by gardening companies and undertake tasks which are related to the subject of their studies and the learning outcomes of the different courses within the specific program of study.				
Teaching Methodology	<p>The Practical Training I takes place within the space of 4 weeks during the summer months in an organization / company in the field of gardening and which is approved by the college. The teacher visits the students to the organization on a regular basis.</p> <p>The students record the tasks they perform during their practical training, in the practical training handbook which is also the space where the teacher of the course and the company's supervisor write their assessment for the student's performance for the entire duration of the training.</p>				
Bibliography					
Assessment	<p>The assessment of the practical training is based on the visits that the teacher of the course makes to the organization / company, his or her comments on the practical training handbook as well as the report that the company's supervisor (of the student) writes for the student's presence, efforts and overall performance.</p> <p>The student is allocated a 'pass or fail'; in the case of a failure, the student has to repeat the practical training over the following academic year.</p>				
Language	Greek				

14.

Course Title	Arboriculture				
Course Code	GRLN219				
Course Type	Theoretical and Practical				
Level	Diploma / Higher Diploma				
Year / Semester	2nd Year / 3rd Semester				
Teacher's Name	Bolla Androniki				
ECTS	6	Lectures / week	2	Laboratories / week	1
Course Purpose and Objectives	The aim of the course is to provide students with the general principles of Arboriculture with regard to the growth, development, propagation and fruition of trees. The course also deals with the origin, morphology, development and production of each fruit tree individually.				
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Understand the morphology and anatomy of the tree</li> <li>• Understand the relationship of the trees and water</li> <li>• Understand the relationship of trees and temperature</li> <li>• Determine the different ways of propagating trees</li> <li>• Carry out the basic types of pruning</li> <li>• Understand the different types of grafting</li> <li>• Carry out grafting of trees and shrubs</li> <li>• Properly fight enemies and tree diseases</li> <li>• Identify various spraying solutions and their proportions</li> <li>• Prepare spraying solutions and use them in an appropriate manner</li> <li>• Recognize the different ways of harvesting fruit trees</li> <li>• Recognize the appropriate storage conditions of fruits in a controlled environment</li> </ul>				
Prerequisites	None	Required	None		
Course Content	<ul style="list-style-type: none"> <li>• The tree and its parts</li> <li>• Water, fruit trees and shrubs</li> <li>• Nutrition, assimilation</li> <li>• Flower formation, the effect of temperature on fruit trees</li> <li>• Tree propagation</li> <li>• Trees and their environment</li> <li>• Establishment of orchards</li> <li>• Cultivation systems</li> <li>• Pruning methods for shaping trees and for fruit production</li> <li>• Pollination- internal and external factors</li> <li>• Fruit development</li> <li>• Harvesting and storage of fruits</li> <li>• Fighting enemies and diseases - spraying material</li> </ul>				
Teaching Methodology	The content of this course will be taught through: PowerPoint presentations, the use of a board, guided discussions with the active participation of students, individual and team work on the part of students, and the use of a variety of visual and other teaching aids as required for the delivery of each unit. Laboratory as well as in appropriate gardening workshops in orchards, nurseries, etc. are planned.				
Bibliography	<p><b>Greek Bibliography:</b></p> <ul style="list-style-type: none"> <li>• Gilman, Edward F. - μετάφραση Σωτηροπούλου Βασιλική (2001), Κλάδεμα δέντρων αστικού και προαστιακού τοπίου: Ένας εικονογραφημένος οδηγός, Αθήνα, Ίων, ISBN 960-411-133-7</li> </ul>				

	<ul style="list-style-type: none"> <li>• Prat, Jean – Yves (μετάφραση Αλεξάνδρα Δημητριάδη), (2008), Κλάδεμα καρποφόρων δέντρων και θάμνων: Ελιά, πυρηνόκαρπα, μηλοειδή, αμπέλι, ακρόδρυα, εσπεριδοειδή και λοιπά καρποφόρα: Ανά είδος, βήμα-βήμα, 1η έκδ., Αθήνα, Ψύχαλος, ISBN 978-960-8455-45-0</li> <li>• Retournard, Denis (2010), Εμβολιασμοί δέντρων &amp; θάμνων: Αμπέλι, ελιά, πυρηνόκαρπα, μηλοειδή, εσπεριδοειδή, ακρόδρυα, τριανταφυλλιά, πεύκο, κυπαρίσσι και λοιπά καλλωπιστικά φυτά, 1η έκδ., Αθήνα, Ψύχαλος, ISBN 978-960-8455-77-1</li> <li>• Ζαχαρόπουλος, Ιγνάτιος Μ. (2003), Δεντροκομία, δεντροτεχνική: Γενική και ειδική, Αθήνα, Ψύχαλος, ISBN 960-7920-32-5</li> <li>• Καϊλίδης, Δημήτριος Σ. (2000), Καλλωπιστικά δένδρα και θάμνοι που φυτεύονται στην Ελλάδα, Θεσσαλονίκη, Χριστοδουλίδη, ISBN 960-7577-23-X</li> <li>• Άλκιμος, Αναστάσιος (2007), Δέντρα και θάμνοι: Καλλωπιστικά είδη από την ελληνική φύση: Οικολογία, καλλιέργεια, χρήση, 1η έκδ., Αθήνα, Ψύχαλος, ISBN 978-960-8455-38-2</li> <li>• Αραμπατζής, Θόδωρος (2001), Θάμνοι και δέντρα στην Ελλάδα, 1η έκδ., Δράμα, Οικολογική Κίνηση Δράμας, τ.2, ISBN 960-85951-3-4</li> <li>• Ποντίκης, Κωνσταντίνος Α. (2001), Ειδική δενδροκομία: Τροπικά φυτά, 1η έκδ., Σταμούλη Α.Ε., τ.5, ISBN 960-351-379-2.</li> <li>• Κουτσός, Θεόδωρος Β. (2010), Η τέχνη του καλλιεργείν: Γεωργία, κηπουρική, δενδροκομία: Βιοκαλλιέργειες ελιάς, αμπελιού, εσπεριδοειδών, μηλιάς και αχλαδιάς, 1η έκδ., Ζήτη, ISBN 978-960-456-189-6.</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Continuous Assessment: <ul style="list-style-type: none"> <li>- Participation: 10%</li> <li>- Written Assignments/ Tests: 30%</li> <li>- Practical examination: 10%</li> </ul> </li> <li>• Final Written Exams: 50%</li> </ul>
Language	Greek

15.

Course Title	Ornamental Trees, Shrubs and Bushes				
Course Code	GRLN214				
Course Type	Theoretical and Practical				
Level	Diploma / Higher Diploma				
Year / Semester	2 <sup>nd</sup> Year / 3 <sup>rd</sup> Semester				
Teacher's Name	Bolla Androniki				
ECTS	5	Lectures / week	2	Laboratories / week	1
Course Purpose and Objectives	The course introduces students to the concept of landscaping with various plants, shrubs and trees, and their right combination and placement in space to ensure consistency and enhance their beauty as living elements of the garden.				
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Understand the cultivation practices of the various aromatic plants and will be able to cultivate and maintain them</li> <li>• Understand the cultivation and maintenance of the various annual, biennial and perennial plants</li> <li>• Identify the different species of bulbous, tuberous and rhizomatous plants, and understand how they are planted and treated</li> <li>• Understand the difference between aquatic and moisture loving plants, and how they are planted and grown</li> <li>• Identify the different plants and shrubs of a rock garden and understand how they are planted and treated</li> <li>• Distinguish the different types of ferns and be able to maintain them</li> <li>• Construct a rock garden and combine it with the appropriate plants</li> <li>• Select and plant the various plants in the appropriate containers</li> <li>• Identify the different species of conifers, understand how they grow, and be able to cultivate and maintain them</li> <li>• Identify the different types of ornamental trees and shrubs, how they grow, and I be able to cultivate and maintain them</li> <li>• Distinguish between the different varieties and types of roses, their cultivation, pruning and propagation, and be able to demonstrate the practical application of such knowledge</li> <li>• Distinguish between the various ornamental climbing plants and care for them</li> </ul>				
Prerequisites	None	Required	None		
Course Content	<ul style="list-style-type: none"> <li>• Herbs</li> <li>• Annual, biennial and perennial ornamental plants</li> <li>• aquatic and moisture loving plants</li> <li>• Bulbous, tuberous and rhizomatous plants</li> <li>• Roses</li> <li>• Climbing</li> <li>• Grass and bamboo</li> <li>• Ferns, lawns, hedge plants, decorative trunks, rock gardens, plants in pots, etc.</li> <li>• Coniferous trees and shrubs</li> <li>• Ornamental trees and shrubs</li> </ul>				

	<ul style="list-style-type: none"> <li>• Criteria for combining the various decorative trees, plants and shrubs for proper gardening</li> </ul>
Teaching Methodology	The content of this course will be taught through: PowerPoint presentations, the use of a board, guided discussions with the active participation of students, individual and team work on the part of students, and the use of a variety of visual and other teaching aids as required for the delivery of each unit. Laboratory as well as in appropriate gardening workshops are planned.
Bibliography	<p><b>Greek Bibliography:</b></p> <ul style="list-style-type: none"> <li>• Reiley, Edward H. - μετάφραση Ουρανία Κουτσιουρή (2008), Φυτά και στοιχεία αρχιτεκτονικής τοπίου, 1η έκδ., Αθήνα, Ίων, ISBN 978-960-411-614-0</li> <li>• Αναστάσιος Δάρρας (2010), Κήποι, βεράντες, οροφώκηποι: Ανθοκομία - Κηποτεχνία καλλωπιστικών Φυτών στο αστικό περιβάλλον, Έμβρυο, ISBN 978-960-8002-57-9.</li> <li>• Πάτλης, Ιωάννης (2003), Οδηγός καλλωπιστικών φυτών: Επιλέξτε φυτά για το χώρο σας, Αθήνα, Σταμούλη Α.Ε., ISBN 960-351-435-7</li> <li>• Crosbie, Colin, μετάφραση Μαρία Παϊζη (2011), Πρακτικό κλάδεμα για όλα τα φυτά: Θάμνοι, περιφράξεις, οπωροφόρα, αναρριχώμενα, καλλωπιστικά, 1η έκδ., Αθήνα, Ίριδα, ISBN 978-960-7926-75-3</li> <li>• Huntington, Lucy, μετάφραση Ιωάννης Βλαχάκης (2008), Καλλωπιστικά φυτά ταξινομημένα κατά χρώμα, 1η έκδ., Αθήνα, Κλειδάριθμος, ISBN 978-960-461-120-1</li> <li>• Donaldson, Stephanie - μετάφραση Αρετή Κοκκίνου (2003), Κρεμαστά καλάθια και διακόσμηση: Υπέροχες συνθέσεις, πολύχρωμα καλάθια, θεαματικοί συνδυασμοί, φανταστικές ιδέες, διακόσμηση χώρου, Αθήνα, Ίριδα, ISBN 960-7926-35-8</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Continuous Assessment: <ul style="list-style-type: none"> <li>- Participation: 10%</li> <li>- Written Assignments / Tests: 30%</li> <li>- Practical examination: 10%</li> </ul> </li> <li>• Final Written Exams: 50%</li> </ul>
Language	Greek

16.

Course Title	Management of Plant Pests, Diseases and Weeds				
Course Code	GRLN205				
Course Type	Theoretical and Practical				
Level	Diploma / Higher Diploma				
Year / Semester	2 <sup>nd</sup> Year / 3 <sup>rd</sup> Semester				
Teacher's Name	Bolla Androniki				
ECTS	4	Lectures / week	1	Laboratories / week	1
Course Purpose and Objectives	The aim of the course is to train students to recognize pests (insects, mites, nematodes), diseases (fungi, bacteria, viruses) and the various kinds of weeds (annual, biannual, perennial) and control them with the most appropriate method (chemical, physical, mechanical and biological).				
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Identify the pests and the diseases that infest plants</li> <li>• Distinguish pests from plant diseases</li> <li>• Identify the different types of weeds that may harm plants</li> <li>• Identify the different types of weeds related to Gardening</li> <li>• Recognize beneficial insects and be able to protect them</li> <li>• Understand how to combat pests, diseases and weeds and be able to select and apply the most appropriate method for each case</li> <li>• Understand the characteristics of agrochemicals (including herbicides) for pest, disease and weed control as well as their origin</li> <li>• Select the right biocide at the right time and use the appropriate dosages according to each case</li> <li>• Properly follow health and safety rules for the rational use of biocides</li> <li>• Protect the environment and groundwater from biocides</li> </ul>				
Prerequisites	None	Required	None		
Course Content	<p><b>Course outline</b></p> <ul style="list-style-type: none"> <li>• Introduction to Entomology, Phytopathology and Weeds - basic principles and concepts</li> <li>• Systematics of insects, mites and nematodes related to Gardening</li> <li>• Beneficial insects and their protection</li> <li>• Systematics of fungi, bacteria and viruses related to Gardening</li> <li>• Systematics of weeds related to Gardening</li> <li>• Methods for controlling plant pests, diseases and weeds (chemical, physical, mechanical or biological)</li> <li>• Characteristics of biocides, their category and origin</li> </ul>				
Teaching Methodology	The content of this course will be taught through: PowerPoint presentations, the use of a board, guided discussions with the active participation of students, individual and team work on the part of students, and the use of a variety of visual and other teaching aids as required for the delivery of each unit together with laboratory training at the College's facilities.				
Bibliography	<p><b>Greek Bibliography:</b></p> <ul style="list-style-type: none"> <li>• Δαρμής, Ιάκωβος (2003), Οδηγός φυτοπροστασίας: Ασθένειες φυτών, καταπολέμηση, φυτοφάρμακα, τρόποι χρήσεως, βιολογική καταπολέμηση, εταιρίες παραγωγής και εμπορίας, 2η έκδ., Αθήνα, Ψύχαλος, ISBN 960-7920-33-3</li> <li>• Δημόπουλος, Βασίλης (2003), Φυτοπροστατευτικά προϊόντα: Εντομοκτόνα, ακαρεοκτόνα, ζιζανιοκτόνα, φυτορρυθμιστικές ουσίες, 2η έκδ., Αθήνα, Έμβρυο, ISBN 960-8002-16-8</li> </ul>				

	<ul style="list-style-type: none"> <li>• Ελευθεροχωρινός, Η. Γ. (2009), Ζιζανιολογία: Ζιζάνια, ζιζανιοκτόνα, περιβάλλον, αρχές και μέθοδοι διαχείρισης, 3η έκδ., Αθήνα, ΑγροΤύπος ΑΕ, ISBN 978-960-7667-34-2</li> <li>• Καϊλίδης, Δημήτριος Σ. (2000), Εχθροί των καλλωπιστικών δέντρων και θάμνων, Θεσσαλονίκη, Χριστοδουλίδη, ISBN 960-7577-06-X</li> <li>• Καϊλίδης, Δημήτριος Σ. (2005), Ασθένειες των δέντρων, δασών και πάρκων, 1η έκδ., Θεσσαλονίκη, Χριστοδουλίδη, ISBN 960-8183-51-0</li> <li>• Κύρου, Νικόλαος Χ. (2004), Φυτοπαρασιτικοί νηματώδεις, 1η έκδ., Αθήνα, ΑγροΤύπος ΑΕ, ISBN 960-7667-21-2</li> <li>• Συλλογικό έργο (2003), Λεξικό φυτοπαθολογικών όρων, Αθήνα, Ιδιωτική Έκδοση,</li> <li>• Συλλογικό έργο (2012), Φυσιολογία καταπονήσεων των φυτών: Οι λειτουργίες των φυτών κάτω από αντίξοες συνθήκες περιβάλλοντος, 3η έκδ., Αθήνα</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Continuous Assessment: <ul style="list-style-type: none"> <li>- Participation: 10%</li> <li>- Written Assignments/ Tests: 30%</li> <li>- Practical examination: 10%</li> </ul> </li> <li>• Final Written Exams: 50%</li> </ul>
Language	Greek

17.

Course Title	Introduction to Computer Aided Design				
Course Code	COMP224				
Course Type	Practical				
Level	Diploma / Higher Diploma				
Year / Semester	2 <sup>nd</sup> Year / 3 <sup>rd</sup> Semester				
Teacher's Name	Panayiotou Eleni				
ECTS	5	Lectures / week	1	Laboratories / week	2
Course Purpose and Objectives	The main purpose of this course is to get the students acquainted with the use of the Adobe Photoshop and AutoCAD design software. The students will learn to use these tools with Photoshop offering the opportunity to process graphics and with AutoCAD offering the opportunity to create a technical design. Both are necessary for the responding to the design needs of the related programs of study.				
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Know the possibilities entailed in the proper use of the Adobe Photoshop and AutoCAD design software</li> <li>• Know the basic instructions and toolboxes of the respective programs</li> <li>• Use the basic instructions of these two programs</li> <li>• Prepare designs with the help of these two programs which will be in accordance with relative instructions and print them in the analogous scale</li> </ul>				
Prerequisites	None	Required	None		
Course Content	<ul style="list-style-type: none"> <li>• <b>AutoCAD</b> <ul style="list-style-type: none"> <li>- Layers of design; their properties and conditions</li> <li>- Creation of layers</li> <li>- Choice of current layers, renaming them and the preparation of a current layer</li> <li>- Deleting one or more layers, the choice of colour in one or more layers, the definition of a layer type, width and style</li> <li>- Line type</li> <li>- Line weight</li> <li>- Design colour</li> <li>- Adjusting the properties of the design</li> <li>- Zoom function</li> <li>- Line, circle, arc functions</li> <li>- X lines</li> <li>- Ray, pline, polygon, retang functions</li> <li>- Erasing and restoring items</li> <li>- Copying designed items</li> <li>- Moving and cutting items</li> <li>- Extending and mirroring items</li> <li>- Arraying and breaking items</li> <li>- Joining and scaling items</li> <li>- Rotating, stretching and dividing items</li> </ul> </li> <li>• <b>Adobe Photoshop</b> <ul style="list-style-type: none"> <li>- Opening the software and other files</li> <li>- Creation of a new file and adjustment of specifications</li> <li>- Storing a picture in different file types</li> </ul> </li> </ul>				

	<ul style="list-style-type: none"> <li>- An overview presentation of the program so that the user can learn to move within it</li> <li>- Menu, options, toolbox, panels</li> <li>- Panels of instructions</li> <li>- Tool for minimizing and enlarging items</li> <li>- Navigation tools</li> <li>- Image and canvas size instruction</li> <li>- Choice tools</li> <li>- Feather and refine edge instructions</li> <li>- Tool for cropping items</li> <li>- Using the text through appropriate characters and paragraphing</li> <li>- Layers: creating a new one, duplicating, deleting, group, copy, paste</li> <li>- Layer styles: drop shadow, bevel, emboss, stroke</li> <li>- Design of basic shapes and colour filling</li> <li>- Moving items</li> <li>- Creating colours</li> <li>- Eyedropper tool</li> <li>- Paintbrush and brushes</li> <li>- Creating a brush with the define brush present instruction</li> <li>- Manu image: adjustments, levels, curves, brightness/contrast, variations</li> <li>- Menu image: adjustments, selective colour, match colour, colour balance, desaturate, vibrance, black and white, photo filter, replace colour, gradient map, threshold; the properties of all of these elements</li> <li>- Hue/saturation and their properties</li> <li>- Overview presentation of filters</li> <li>- Clone stamp tool, healing brush, patch tool, red eye tool, colour replacement tool</li> <li>- Pen tool (add, delete, convert, direct selection tool, path selection tool)</li> <li>- Eraser tool and properties</li> <li>- Gradient tool, paint bucket tool and their properties</li> <li>- Blue tool, sharpen tool, smudge tool and their properties</li> <li>- Introduction of elements from different programs and their photoshop processing; creating, storing and printing files</li> </ul>
Teaching Methodology	Presentations and the use of the software programs, discussions, exercises, students' active participation and the use of different, various audio-visual equipment.
Bibliography	<p><b>Greek Bibliography</b></p> <ul style="list-style-type: none"> <li>• Κάππος, Γιάννης Θ. (2017), Δουλεψτε Με Autocad 2017, Κλειδάριθμος, ISBN 978-960-461-730-2</li> <li>• Κάππος, Γιάννης Θ. (2015), Εισαγωγή στο AutoCAD 2015: Ό,τι χρειάζεται ο χρήστης που ξεκινά με τοAutoCAD, Κλειδάριθμος, ISBN 978-960-461-646-6.</li> <li>• Σαμαρας Β. Γιαννης., (2012), Adobe Photoshop Cs6 Βημα Προς Βημα, Γκιουρδας Μ. ISBN 978-960-512-646-9.</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Continuous assessment: <ul style="list-style-type: none"> <li>- Presence in lectures: 10%</li> <li>- Individual and group assignments: 20%</li> <li>- Mid-term practical examination: 20%</li> </ul> </li> <li>• Final practical exams: 50%</li> </ul>
Language	Greek

18.

Course Title	Garden Constructions I				
Course Code	GRLN215				
Course Type	Theoretical and Practical				
Level	Diploma / Higher Diploma				
Year / Semester	2 <sup>nd</sup> Year / 3 <sup>rd</sup> Semester				
Teacher's Name	Panayiotou Eleni				
ECTS	6	Lectures / week	2	Laboratories / week	2
Course Purpose and Objectives	This main purpose of this course, is to introduce students to the different materials that are used in gardening constructions, describing their properties and uses. Moreover, there is a sound description of the different typical gardening constructions, pinpointing to their design through the use of appropriate design tools. An important part of this course is the capture and transfer of the design on field, through an appropriate number of visits of the students together with their teacher in places gardening construction takes place.				
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Know the basic material and their properties which are used for gardening constructions, such as different types of stone, bricks, metal and concrete</li> <li>• Prepare construction plans through the use of appropriate tools, including views and sections for different gardening types</li> <li>• Know the basic gardening elements, such as entrance, gate, different supportive constructions, different wall types, different paved paths and the way of constructing all of them</li> <li>• Observe the process of constructing different gardening types on the field and based on the relative gardening planning</li> </ul>				
Prerequisites	GRLN110	Required	None		
Course Content	<ul style="list-style-type: none"> <li>• Introduction to garden constructions <ul style="list-style-type: none"> <li>- Traditional constructions</li> <li>- Globalisation</li> <li>- Sustainability of material</li> </ul> </li> <li>• Material properties for gardening constructions <ul style="list-style-type: none"> <li>- Special weight</li> <li>- Colour and texture</li> <li>- Thermal properties</li> <li>- Acoustic properties</li> <li>- Deformation of material</li> </ul> </li> <li>• Introduction to technical design <ul style="list-style-type: none"> <li>- Lines</li> <li>- Scale</li> <li>- Views and sections</li> <li>- Material</li> <li>- Dimensioning</li> <li>- Appropriate use of pencils and pens</li> </ul> </li> <li>• Stones <ul style="list-style-type: none"> <li>- Structural stones in ancient times</li> <li>- Structural stones in the contemporary construction industry</li> </ul> </li> <li>- Plaster</li> </ul>				

	<ul style="list-style-type: none"> <li>- Different types of crackers</li> <li>- Limestone</li> <li>• Skiers</li> <li>- Different types</li> <li>- Endurance types</li> <li>- Finishing skiers</li> <li>• Brick</li> <li>- Material for the construction of bricks</li> <li>- Construction process</li> <li>- Brick types</li> <li>- Joining wall bricks</li> <li>- Problems related to the use of bricks</li> <li>• Barbeques</li> <li>- Materials and ways of constructing them</li> <li>- Position in the garden</li> <li>- Design</li> <li>- Accompanied constructions</li> <li>• Metals</li> <li>- Shaping metals</li> <li>- Iron</li> <li>- Iron in different forms</li> <li>- Steel</li> <li>- Zinc</li> <li>- Lead</li> <li>• Entrances and gates</li> <li>- Ways of constructing them</li> <li>- Uses</li> <li>- Gate design, top view and sections</li> <li>• Supporting constructions</li> <li>- Stairs</li> <li>- Ramps</li> <li>- Supportive walls</li> <li>- Design of supportive construction</li> <li>• Walls</li> <li>- Material for the construction of walls</li> <li>- Design problems</li> <li>- Foundations and construction</li> <li>- Waterproofing</li> <li>- Different types of dry stones</li> <li>- Wall design, top view and sections</li> <li>• Paved ways</li> <li>- Foundations</li> <li>- Hard and soft paving; design, top view and sections</li> <li>- Coloured paved ways</li> <li>- Patios</li> <li>• Synthetic turf</li> <li>- Types of synthetic turf</li> <li>- Foundations</li> <li>- Applying the synthetic turf</li> <li>- Problems and examples to avoid</li> </ul>
Teaching Methodology	Lectures, demonstration, discussion, group exercises and assignments, education visits, guest presentations and digital presentations of different techniques for gardening design and planning.
Bibliography	<b><i>Greek Bibliography</i></b>

	<ul style="list-style-type: none"> <li>• McHoy, Peter - μετάφραση Ελευθερία Τσαλέρα (2003), Κατασκευές και γρήγοροι κήποι: Εύκολες, πρακτικές, γρήγορες κατασκευές, Αθήνα, Ίριδα, ISBN 960-7926-34-X</li> <li>• Ingels, Jack E. (μετάφραση Γαλλία Ιωάννα, Ειρήνη Ραζή, Κονταξή Μίλυ, Σταυρούλα Μεταξά) (2008), Κατασκευές και συντήρηση κήπων, 1η έκδ., Ίων, τ.2, ISBN:978-960-411-352-1.</li> <li>• Wiles, Richard (μετ. Θανάσης Παπούλιας) (1999), Κατασκευές στον κήπο, Ψύχαλος, ISBN 960-7920-26-0.</li> <li>• Braun, Harald (Παπαδόπουλος, Σταύρος μετ.), (2011), Η διαμόρφωση του κήπου, Μαλλιάρης Παιδεία, ISBN: 9789604574292.</li> </ul> <p><b>English Bibliography</b></p> <ul style="list-style-type: none"> <li>• Holden, R. and Liversedge, J., 2014. Landscape Architecture: An Introduction</li> <li>• Robert Holden and Jamie Liversedge (2011) Construction for Landscape Architecture - ebook</li> <li>• Better Homes and Gardens (2008) Ideas &amp; How-To: Garden Structures (Better Homes and Gardens)</li> <li>• Editors of Creative Publishing (2006) The Black &amp; Decker Complete Guide to Landscape Construction: 60 Step-by-step Projects for Creating a Perfect Landscape</li> <li>• Bob DeLozier and Will Grissom (2011) Artificial Grass for Everyone: Ultimate Do it Yourself Guide To Installing Artificial Grass</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Continuous assessment: <ul style="list-style-type: none"> <li>- Presence in lectures: 20%</li> <li>- Practical assignment: 15%</li> <li>- Project and presentation: 20%</li> </ul> </li> <li>• Final written exams: 45%</li> </ul>
Language	Greek

19.

Course Title	Garden and Landscaping Drawing Plan				
Course Code	GRLN216				
Course Type	Practical				
Level	Diploma / Higher Diploma				
Year / Semester	2 <sup>nd</sup> Year / 3 <sup>rd</sup> Semester				
Teacher's Name	Panayiotou Eleni				
ECTS	4	Lectures / week		Laboratories / week	2
Course Purpose and Objectives	The main purpose of this course is to give to the students an outline of the general principles and practices of garden design, based especially on the appropriate use of tools, the graphical representation and material.				
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Design an item based on scale and present it in 3-D form</li> <li>• Prepare plans for existing gardens, buildings and external space, using sections, altitude and perspective planning</li> <li>• Collect information in relation to a plot, building space or other space with the aim to create new plans (altitude, sections and more)</li> <li>• Prepare introductory space charts</li> <li>• Incorporate their designs within gardening</li> <li>• Prepare plans by hand which can elevate the importance of an item in 3-D form</li> <li>• Complete a portfolio of plans for gardening within an inhabited space</li> </ul>				
Prerequisites	None	Required		None	
Course Content	<p>This introductory course on gardening design, researches different design methods and observations with a special focus on the spatial relationships. The students will develop the capability to design through the assistance of practice and experience with different design tools. The understanding of concepts and political developments will encourage them to develop their own unique and critical aesthetic analyses. Moreover, the students will analyse plans that have a historical, theoretical and political relationship, as these continue to express contemporary interests.</p> <p>In this course, there is an introduction to the basic practices of putting a plan into action using appropriate methods and techniques. The design types include topographic plans, idea plans and manufacturing plans.</p> <ul style="list-style-type: none"> <li>• Presentation of basic design techniques</li> <li>• Choice of the appropriate design tools for the completion of the plan</li> <li>• Measurements for the use of scales / scaling tools</li> <li>• Intuitive practice of measurement in gardening</li> <li>• Design skills based on the use of the hand</li> <li>• Types of designs: <ul style="list-style-type: none"> <li>- Topographic</li> <li>- Idea</li> <li>- Manufacturing</li> <li>- Details</li> <li>- Planning for inhabited areas</li> <li>- Pictures</li> <li>- Dimensions</li> </ul> </li> <li>• Design lines and symbols</li> </ul>				

	<ul style="list-style-type: none"> <li>• Plan perimeter and memorandum</li> <li>• Spatial planning</li> <li>• Basic plans for the development of a garden</li> <li>• Defining and controlling spatial dimensions</li> <li>• Dimension for different types of architectural plans and relative details</li> <li>• External elevations</li> </ul>
Teaching Methodology	Lectures, demonstration, discussion, group exercises and assignments, education visits, guest presentations and digital presentations of different techniques for gardening design and planning.
Bibliography	<p><b>Greek Bibliography</b></p> <ul style="list-style-type: none"> <li>• Hackstein, Herman, μετάφραση Πασχαλία Ρήγα (2009), Λεξικό για βραχόκηπους: Ένας οδηγός για επιτυχημένη κατασκευή και φύτεμα, 1η έκδ., Θεσσαλονίκη, Τζιαμπίρης - Πυραμίδα, ISBN 978-960-6753-18-3</li> <li>• Hendy, Jenny, μετάφραση Γιάννης Χατζηλάρης (2010), Όμορφος κήπος όλο το χρόνο: Οδηγίες, τεχνικές, συμβουλές, ελάχιστη φροντίδα, εύκολες κατασκευές, 1η έκδ., Αθήνα, Ίριδα, ISBN 978-960-7926-72-2</li> <li>• Brookes, John (2005), Αρχιτεκτονική κήπων: Από τη θεωρία στην πράξη, Ψύχαλος, ISBN 960-8455-04-9</li> <li>• Ingels, Jack E. (μετάφραση Γαγλία Ιωάννα, Ειρήνη Ραζή, Κονταξή Μίλυ, Σταυρούλα Μεταξά), (2004), Σχεδιασμός και μελέτες κήπων, 1η έκδ., Αθήνα, Ίων, τ.1, ISBN:960-411-352-6</li> <li>• Wilson, Andrew, μετάφραση Δημήτριος Πετρόπουλος (2005), Ο κήπος, αρχιτεκτονική και σχεδιασμός, 1η έκδ., Ίριδα, ISBN 960-7926-55-2</li> <li>• Braun, Harald, μετάφραση Σταύρος Παπαδόπουλος (2010), Η διαμόρφωση του κήπου: 400 εντυπωσιακές ιδέες με κείμενο και φωτογραφίες, 1η έκδ., Θεσσαλονίκη, Μαλλιάρης Παιδεία, ISBN 978-960-457-429-2.</li> </ul> <p><b>English Bibliography</b></p> <ul style="list-style-type: none"> <li>• Jefferis, Alan (2010), Architectural Drafting and Design, Delmar Cengage Learning, 6th edition, ISBN: 978-1435481626.</li> <li>• Flannery, John A. (2008), Urban Landscape Design, teNeues, ISBN: 978-3832792756.</li> <li>• Booth, Norman K. (2011), Residential Landscape Architecture: Design Process for the Private Residence, 6th edition, Prentice Hall, ISBN: 978-0132376198.</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Continuous assessment: <ul style="list-style-type: none"> <li>- Presence and participation in lectures: 20%</li> <li>- Assignments: 15%</li> <li>- Project and presentation: 20%</li> </ul> </li> <li>• Final written exams: 45%</li> </ul>
Language	Greek

20.

Course Title	Automatic Irrigation Systems				
Course Code	GRLN217				
Course Type	Theoretical and Practical				
Level	Diploma / Higher Diploma				
Year / Semester	2 <sup>nd</sup> Year / 4 <sup>th</sup> Semester				
Teacher's Name	Antoniou Efrosini				
ECTS	4	Lectures / week	1	Laboratories / week	1
Course Purpose and Objectives	The aim of the course is to train students in the design and installation of irrigation systems and installation of automations, aiming at exploiting their potential and advantages in saving water, reducing working time and improving the quality of the products produced.				
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Understand the reasons for using Improved Irrigation Systems (IIS)</li> <li>• Describe the construction and mode of operation of various IIS</li> <li>• Understand the advantages of any kind of IIS</li> <li>• Advise in selecting a cost-effective IIS for a specific case</li> <li>• Design and construct a small-scale IIS</li> <li>• Plan an irrigation time schedule in relation to the amount of water available and the specific needs of plants</li> <li>• Develop IIS designs for smooth and for uneven surfaces</li> <li>• Administer the necessary agrochemicals via the IIS</li> <li>• Be able to design an irrigation system</li> <li>• to calculate the water needs of their crop or garden.</li> <li>• understand and know the importance of sustainable water resource management in irrigation.</li> <li>• know and be able to use recirculated water in their irrigation designs.</li> <li>• know how climate change affects the availability of water resources in their area.</li> </ul>				
Prerequisites	None	Required	None		
Course Content	<p><b>Course outline</b></p> <ul style="list-style-type: none"> <li>• Types of IIS systems, description, mode of operation</li> <li>• Characteristics, advantages / disadvantages of IIS</li> <li>• Irrigation network design</li> <li>• Irrigation on smooth and on uneven surfaces</li> <li>• Application of agrochemicals via IIS</li> <li>• Calculation of water needs of plants.</li> <li>• Climate change and sustainable management of water resources in irrigation.</li> <li>• Use of recycled water in irrigation.</li> </ul>				
Teaching Methodology	The content of this course will be taught through: PowerPoint presentations, the use of a board, guided discussions with the active participation of students, individual and team work on the part of students, and the use of a variety of visual and other teaching aids as required for the delivery of each unit, together with laboratory training at the College's facilities.				
Bibliography	<p><b>Greek Bibliography:</b></p> <ul style="list-style-type: none"> <li>• Πουλοβασίλης, Αλέξανδρος (2010), Εισαγωγή στις αρδεύσεις, 1η έκδ., Αθήνα, Έμβροο, ISBN 978-960-8002-54-8</li> <li>• Μπαμπίλης, Δημήτρης (2004), Αρδευτικά δίκτυα πρασίνου, Σταμούλη Α.Ε., ISBN 960-351-481-0</li> </ul>				

	<ul style="list-style-type: none"> <li>• Αραμπατζής, Γεώργιος; Παναγόπουλος, Ανδρέας; Πισινάρας Βασίλειος; Χατζηγιαννάκης Ευάγγελος, (2018), Χρήση του Αρδευτικού Νερού – Κλιματική Αλλαγή, ISBN: 978-618-83573-0-3.</li> </ul> <p><b>English Bibliography</b></p> <ul style="list-style-type: none"> <li>• Lee, Teang Shui (2012), Irrigation Systems and Practices in Challenging Environments, ISBN: 978-953-51-0420-9</li> <li>• Jalota, S.K.; Vashisht, B.B.; Sharma, S.; Kaur, S; (2018), Understanding Climate Change Impacts on Crop Productivity and Water Balance, ISBN: 978-0-12-809520-1.</li> <li>•</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Continuous Assessment: <ul style="list-style-type: none"> <li>- Participation: 10%</li> <li>- Written Assignments / Tests: 30%</li> <li>- Practical examination: 10%</li> </ul> </li> <li>• Final Written Exams: 50%</li> </ul>
Language	Greek

21.

Course Title	2D Computer Aided Landscaping Design			
Course Code	GRLN221			
Course Type	Practical			
Level	Diploma / Higher Diploma			
Year / Semester	2 <sup>nd</sup> Year / 4 <sup>th</sup> Semester			
Teacher's Name	Panayiotou Eleni			
ECTS	4	Lectures / week	Laboratories / week	3
Course Purpose and Objectives	The course focuses on the study, understand and creation of landscaping designs, projective and prospective designs, as well as irrigation and altitude designs. Furthermore, this course focuses on 2D design, based on the software program AutoCAD.			
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Use AutoCAD in preparing different landscaping designs that are essential for gardening design</li> <li>• Create, process and print appropriate 2D designs such as: <ul style="list-style-type: none"> <li>- Digital landscaping based on appropriate scaling and dimensions</li> <li>- Detailed construction designs</li> <li>- Irrigation designs</li> <li>- External elevations</li> <li>- Complete 2D gardening designs</li> </ul> </li> <li>• Apply 2D techniques for gardening plans and external space plans</li> <li>• Understand different measurement systems</li> <li>• Transform the dimensions between the Metric and the Anglo-Saxon system</li> </ul>			
Prerequisites	COMP224	Required	None	
Course Content	<ul style="list-style-type: none"> <li>• Introduction of different forms of designs through the use of the AutoCAD program, the digitization of scale and measurements, plan memorandum and the definition and control of dimensions</li> <li>• Design types <ul style="list-style-type: none"> <li>- Landscaping designs</li> <li>- Detailed construction designs</li> <li>- External elevations</li> <li>- Irrigation plans</li> <li>- Altitude maps</li> </ul> </li> <li>• Measurements <ul style="list-style-type: none"> <li>- Measurement systems</li> <li>- Metric</li> <li>- Anglo-Saxon</li> <li>- Conversions</li> <li>- Units of measurement</li> <li>- Equivalentents</li> </ul> </li> </ul>			
Teaching Methodology	Lectures, demonstration, discussion, group exercises and assignments, education visits, guest presentations and digital presentations of different techniques for gardening design and planning.			
Bibliography	<b><i>Greek Bibliography</i></b>			

	<ul style="list-style-type: none"> <li>• Onstott, Scott. (μετ. Αγαμέμνων Μήλιος) (2011), AutoCAD 2012: Οπτικός οδηγός: Μάθετε το AutoCAD γρήγορα και εύκολα, Γκιούρδας Μ., ISBN 978-960-512-632-2.</li> <li>• Εισαγωγή στο AutoCAD 2015 – Ότι χρειάζεται ο χρήστης που ξεκινά με το AutoCAD που ξεκινά με το AutoCAD 2015, Γιάννης Θ. Κάππος, ISBN: 978-960-461-646-6, Εκδότης: Κλειδάριθμος.</li> <li>• Αρχιτεκτονική τοπίου Τσαλικίδης, Γιάννης Α. Επίκεντρο 2008</li> </ul> <p><b>English Bibliography</b></p> <ul style="list-style-type: none"> <li>• Holden, R. and Liversedge, J., 2014. Landscape Architecture: An Introduction</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Continuous assessment: <ul style="list-style-type: none"> <li>- Participation in lectures: 20%</li> <li>- Projects and assignments: 35%</li> </ul> </li> <li>• Final practical exams: 45%</li> </ul>
Language	Greek

22.

Course Title	Urban Gardening				
Course Code	GRLN223				
Course Type	Theoretical and Practical				
Level	Diploma / Higher Diploma				
Year / Semester	2 <sup>nd</sup> Year / 4 <sup>th</sup> Semester				
Teacher's Name	Panayiotou Eleni				
ECTS	3	Lectures / week	1	Laboratories / week	1
Course Purpose and Objectives	The aim of the course is to introduce students to the basic elements of small scale gardens in urban areas and in areas such as balconies, open spaces, courtyards and even indoors.				
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Understand what it takes to design a small indoor or outdoor space in urban areas</li> <li>• Plan a garden for: <ul style="list-style-type: none"> <li>o small back yards</li> <li>o apartments and balconies</li> <li>o flower boxes, hanging baskets</li> <li>o small outdoor gardens in the backyard</li> </ul> </li> <li>• Select plants for different types of gardens</li> <li>• Familiarize with modern systems for growing indoor plants</li> <li>• Grow plants and flowers in flower gardens indoors and in urban areas</li> <li>• Take full advantage of the restricted balcony spaces for growing flowers</li> <li>• Get to know about vertical gardens, green ceilings and green walls and the positive aspects of the microclimate in urban areas.</li> <li>• Be able to propose urban landscape plans that serve the need for adaptation of urban areas to climate change.</li> </ul>				
Prerequisites	None	Required	None		
Course Content	<ul style="list-style-type: none"> <li>• Gardening in indoor spaces</li> <li>• Backyard gardening</li> <li>• Indoor and outdoor plants</li> <li>• Irrigation of indoor and outdoor spaces</li> <li>• Fertilization of indoor plants</li> <li>• Hydroponic gardening of indoor and outdoor spaces</li> <li>• Indoor herbs</li> <li>• Vegetable gardens in urban areas and indoors</li> <li>• Garden with flowering plants</li> <li>• Indoor children's gardens</li> <li>• Urban gardens with cactus plants</li> <li>• Flowering plants for indoor in urban areas</li> <li>• Indoor seed sprouting</li> <li>• Adaptation of urban landscapes to climate change</li> <li>• Vertical gardens, green ceilings and green walls</li> </ul>				
Teaching Methodology	The content of this course will be taught through: PowerPoint presentations, the use of a board, guided discussions with the active participation of students, individual and team work on the part of students, and the use of a variety of visual and other teaching aids as required for the delivery of each unit. Training visits will place where students can observe plants, identify them, and take care of their maintenance.				

Bibliography	<p><b>Greek Bibliography:</b></p> <ul style="list-style-type: none"> <li>• Σπαντιδάκης, Ιωάννης Γ. (2008), Ελληνικός κήπος: Ιστορία, αισθητική, σχεδιασμός, κατασκευή, 1η έκδ., Αθήνα, Σταμούλη Α.Ε., ISBN 978-960-351-732-0</li> <li>• Braun, Harald, μετάφραση Σταύρος Παπαδόπουλος (2010), Η διαμόρφωση του κήπου: 400 εντυπωσιακές ιδέες με κείμενο και φωτογραφίες, 1η έκδ., Θεσσαλονίκη, Μαλλιάρης Παιδεία, ISBN 978-960-457-429-2</li> <li>• Donaldson, Stephanie - μετάφραση Αρετή Κοκκίνου (2003), Κρεμαστά καλάθια και διακόσμηση: Υπέροχες συνθέσεις, πολύχρωμα καλάθια, θεαματικοί συνδυασμοί, φανταστικές ιδέες, διακόσμηση χώρου, Αθήνα, Ίριδα, ISBN 960-7926-35-8</li> <li>• Hendy, Jenny, μετάφραση Γιάννης Χατζηλάρης (2010), Όμορφος κήπος όλο το χρόνο: Οδηγίες, τεχνικές, συμβουλές, ελάχιστη φροντίδα, εύκολες κατασκευές, 1η έκδ., Αθήνα, Ίριδα, ISBN 978-960-7926-72-2</li> <li>• μετάφραση Αριστείδης Καραμπεάζης (2009), Λεξικό μικρών κήπων, 1η έκδ., Αθήνα, Καρακώτσογλου, ISBN 978-960-6611-94-0</li> <li>• επιμέλεια Andrew Wilson, μετάφραση Μαρία Παϊζή (2008), Μικροί κήποι: Σχεδιασμός και διαμόρφωση, αρχιτεκτονική και δημιουργία, 1η έκδ., Ίριδα, ISBN 978-960-7926-67-8</li> <li>• Kirton, Meredith, μετάφραση Ταξιάρχης Ανδρισσόπουλος (2008), Κήποι και βεράντες: Μέσα σε λίγο χρόνο και με απλές κινήσεις μεταμορφώστε την αυλή ή το μπαλκόνι σας!, 1η έκδ., Αθήνα, Modern Times, ISBN 978-960-691-025-8</li> <li>• Αναστάσιος Δάρρας (2010), Κήποι, βεράντες, οροφόμενοι: Ανθοκομία - Κηποτεχνία καλλωπιστικών Φυτών στο αστικό περιβάλλον, Έμβρυο, ISBN 978-960-8002-57-9.</li> </ul> <p><b>English Bibliography:</b></p> <ul style="list-style-type: none"> <li>• Solomon, Reggie (2010), I Garden - Urban Style, Betterway Books, ISBN: 978-1440305566.</li> <li>• Yokohari, M., Murakami, A., Hara, Y., Tsuchiya, K. (2017), Sustainable Landscape Planning in Selected Urban Regions, ISBN 978-4-431-56445-4.</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Continuous Assessment: <ul style="list-style-type: none"> <li>- Participation: 10%</li> <li>- Written Assignments/ Tests: 30%</li> <li>- Practical examination: 10%</li> </ul> </li> <li>• Final Written Exams: 50%</li> </ul>
Language	Greek

23.

Course Title	Garden Constructions II				
Course Code	GRLN222				
Course Type	Theoretical and Practical				
Level	Diploma / Higher Diploma				
Year / Semester	2 <sup>nd</sup> Year / 4 <sup>th</sup> Semester				
Teacher's Name	Panayiotou Eleni				
ECTS	4	Lectures / week	2	Laboratories / week	1
Course Purpose and Objectives	<p>The course 'Gardening Constructions II' represents a continuation of the course 'Gardening Constructions I' which, as it follows, is a prerequisite for this course. The main scope of this course is the in-depth study of outdoor elements, the material used for their construction, their properties and uses. Some of them relate to lighting, different liquid elements such as lakes and the design based on the micro-environment. The students learn to apply relative manufacturing details using the specialized design software program AutoCAD.</p>				
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Know more material and their properties with which they can proceed with the construction of a garden, such as wood, soil, glass, rubber and more</li> <li>• Suggest appropriate soil tasks in a garden, taking into consideration the terrain, its uses and the intended landscaping configuration</li> <li>• Read and prepare construction plans using a computer design software, including different aspects and sections for different gardening constructions</li> <li>• Know the basic gardening constructions based on wood such as deck, pergolas, fences, benches, entrances, gates, glass and their manufacturing type as well as the use of soil</li> <li>• Design with the assistance of a computer design software plans for the preparation of the eventual construction of different types of gardens</li> <li>• Know the general characteristics of liquid garden elements such as lakes and the specific way for constructing them</li> <li>• Design liquid garden elements with the help of a computer design software</li> <li>• Know hydrophytes and hydrophilic plants</li> <li>• Know what the micro-environment is as well as the factors which affect it</li> <li>• Suggest appropriate gardening constructions which, by taking into consideration the micro-environment of the area, can help create thermally convenient gardens</li> <li>• Know what the design zones are and be able to use them</li> <li>• Know the basic provisions regarding the rules and regulations in installing lighting in gardens</li> <li>• Know the basic cable types that can be installed in a garden as well as the way of doing so</li> <li>• Know different types of gardening lighting</li> <li>• Observe the course of gardening construction based on the initial planning</li> </ul>				

Prerequisites	GRLN215	Required	None
Course Content	<ul style="list-style-type: none"> <li>• Wood <ul style="list-style-type: none"> <li>- Different types and uses</li> <li>- Humidity and drying out</li> <li>- Durability</li> <li>- Maintenance</li> </ul> </li> <li>• Plastic and rubber <ul style="list-style-type: none"> <li>- Synthetic rubber</li> <li>- Plastic</li> <li>- Durability</li> <li>- Toxicity</li> <li>- Constructions and applications based on plastic and rubber</li> <li>- Environmental concerns</li> </ul> </li> <li>• Glass <ul style="list-style-type: none"> <li>- Modern glass-based constructions</li> <li>- Applications in outdoor tasks</li> </ul> </li> <li>• Soil tasks <ul style="list-style-type: none"> <li>- Physical ground</li> <li>- Underground water</li> <li>- Tree protection</li> <li>- Soil abilities</li> <li>- Landscaping formation, digging and filling up with soil</li> </ul> </li> <li>• Deck <ul style="list-style-type: none"> <li>- Appropriate wood</li> <li>- Application</li> <li>- Design</li> </ul> </li> <li>• Pergolas <ul style="list-style-type: none"> <li>- Examples</li> <li>- Wood</li> <li>- Design</li> </ul> </li> <li>• Fences <ul style="list-style-type: none"> <li>- Types</li> <li>- Examples</li> <li>- Joints</li> <li>- Design</li> </ul> </li> <li>• Benches <ul style="list-style-type: none"> <li>- Types</li> <li>- Construction material</li> <li>- Design</li> </ul> </li> <li>• Protection and finishing <ul style="list-style-type: none"> <li>- Paint</li> <li>- Paint application</li> <li>- Environmental concerns related to paint</li> </ul> </li> <li>• Wood protection <ul style="list-style-type: none"> <li>- Preservatives</li> <li>- Varnishes</li> </ul> </li> <li>• Liquid gardening elements <ul style="list-style-type: none"> <li>- Introduction to the construction of a gardening lake, way of constructing and design</li> <li>- Fountain construction, general principles for the electrical instalment, design</li> <li>- Design and construction of a gardening fall</li> </ul> </li> </ul>		

	<ul style="list-style-type: none"> <li>- Hydrophytes and hydrophilic plants</li> <li>• Gardening design and micro-environment</li> <li>- Microenvironment</li> <li>- Factors which affect the micro-environment</li> <li>- Thermally convenient gardens</li> <li>- Design zones</li> <li>• Garden lighting</li> <li>- Introduction to the rules for electrical installations – relative rules and regulations</li> <li>- Cable types</li> <li>- Electrical equipment appropriate for gardens</li> <li>- Ways for installing cables in a garden and examples of lighting</li> </ul> <p>Based on a study of the micro-environment and the characteristics of the landscape, the students suggest appropriate constructions. An important part of this course, is the capturing and transfer of the plan to the actual construction space. This is achieved through an appropriate number of visits to places where gardening constructions happen based on an appropriate analysis of plans which are given to the students in advance.</p>
Teaching Methodology	Lectures, demonstration, discussion, group exercises and assignments, education visits, guest presentations and digital presentations of different techniques for gardening design and planning.
Bibliography	<p><b>Greek Bibliography</b></p> <ul style="list-style-type: none"> <li>• McHoy, Peter - μετάφραση Ελευθερία Τσαλέρα (2003), Κατασκευές και γρήγοροι κήποι: Εύκολες, πρακτικές, γρήγορες κατασκευές, Αθήνα, Ίριδα, ISBN 960-7926-34-X</li> <li>• Ingels, Jack E. (μετάφραση Γαγλία Ιωάννα, Ειρήνη Ραζή, Κονταξή Μίλυ, Σταυρούλα Μεταξά) (2008), Κατασκευές και συντήρηση κήπων, 1η έκδ., Ίων, τ.2, ISBN:978-960-411-352-1.</li> <li>• Wiles, Richard (μετ. Θανάσης Παπούλιας) (1999), Κατασκευές στον κήπο, Ψύχαλος, ISBN 960-7920-26-0.</li> <li>• Francis, Alison R. - μετάφραση Θανάσης Παπούλιας (2001), Υδροκήποι: Άνθη και φυτά στο νερό, 1η έκδ., Αθήνα, Ψύχαλος, ISBN 960-7920-82-1</li> <li>• Μαυρογιαννόπουλος, Γεώργιος Ν. (2007), Υδροπονικές εγκαταστάσεις, 2η έκδ., Αθήνα, Σταμούλη Α.Ε., ISBN 978</li> <li>• John Brookes (μετάφραση Ψύχαλος) (2005) Αρχιτεκτονική κήπων – Από τη θεωρία στην πράξη</li> </ul> <p><b>English Bibliography</b></p> <ul style="list-style-type: none"> <li>• Steve Cory and Home Improvement and Decks (2009) Deck Designs, 3rd Edition: Great Design Ideas from Top Deck Designers</li> <li>• Jeff Beneke (2005) The Fence Bible: How to plan, install, and build fences and gates to meet every home style and property need, no matter what size your yard</li> <li>• Edidtors of Creative Homeowner (2011) Garden Ponds, Fountains &amp; Waterfalls for your home (Landscaping)</li> <li>• Robert Holden and Jamie Liversedge (2011) Construction for Landscape Architecture</li> <li>• Better Homes and Gardens (2008) Ideas &amp; How-To: Garden Structures (Better Homes and Gardens)</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Continuous assessment: <ul style="list-style-type: none"> <li>- Presence in lectures: 20%</li> <li>- Assignment: 15%</li> <li>- Project and presentation: 20%</li> </ul> </li> </ul>

	<ul style="list-style-type: none"><li>• Final written exams: 45%</li></ul>
Language	Greek

24.

Course Title	Tree Surgery and Basic Pruning Techniques				
Course Code	GRLN218				
Course Type	Theoretical and Practical				
Level	Diploma / Higher Diploma				
Year / Semester	2 <sup>nd</sup> Year / 4 <sup>th</sup> Semester				
Teacher's Name	Kordatos Charalambos				
ECTS	3	Lectures / week	1	Laboratories / week	1
Course Purpose and Objectives	The aim of the course is to train students in the practice and in the techniques of pruning. It focuses on various ornamental and fruit trees as well as shrubs, aiming to influence their growth and development with effect on production of flowers and fruits as well as on aesthetics. Furthermore, the course introduces students to topics of tree surgery.				
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Understand techniques of pruning plants and shrubs</li> <li>• Apply the various surgical and pruning techniques under different climatic conditions</li> <li>• Apply pruning to various ornamental, evergreen vines / climates and fruit trees</li> <li>• Properly diagnose the various pruning problems for better aesthetics of the landscape and for improving fruit production</li> <li>• Use the various tools and machines correctly and safely</li> </ul>				
Prerequisites	GRLN219	Required	None		
Course Content	<ul style="list-style-type: none"> <li>• Introduction</li> <li>• Pruning and tree-cutting tools</li> <li>• Pruning cuts</li> <li>• Cutting technique</li> <li>• Repairing damages to trees</li> <li>• Tree supports</li> <li>• Pruning to form shape and pruning for fruit production</li> <li>• Elevating tree crowns</li> <li>• Thinning tree crowns</li> <li>• Trimming tree tops</li> <li>• Tree down trees and uprooting</li> <li>• Crown formation and symmetry</li> <li>• Correction of cavities</li> <li>• Fighting pests and diseases after tree pruning</li> </ul>				
Teaching Methodology	The content of this course will be taught through: PowerPoint presentations, the use of a board, guided discussions with the active participation of students, individual and team work on the part of students, and the use of a variety of visual and other teaching aids as required for the delivery of each unit, together with practical training at the College's lab facilities.				
Bibliography	<p><b>Greek Bibliography:</b></p> <ul style="list-style-type: none"> <li>• Gilman, Edward F. - μετάφραση Σωτηροπούλου Βασιλική (2001), Κλάδεμα δέντρων αστικού και προαστιακού τοπίου: Ένας εικονογραφημένος οδηγός, Αθήνα, Ίων, ISBN 960-411-133-7</li> <li>• Prat, Jean – Yves (μετάφραση Αλεξάνδρα Δημητριάδη), (2008), Κλάδεμα καρποφόρων δέντρων και θάμνων: Ελιά, πυρηνόκαρπα,</li> </ul>				

	<p>μηλοειδή, αμπέλι, ακρόδρυα, εσπεριδοειδή και λοιπά καρποφόρα: Ανά είδος, βήμα-βήμα, 1η έκδ., Αθήνα, Ψύχαλος, ISBN 978-960-8455-45-0</p> <ul style="list-style-type: none"> <li>• Αποστολόπουλος, Απ. (2007), Η καλλιέργεια των μπονσάι: Τεχνοτροπίες, συρματοδέση, κλάδεμα, μεταφύτευση, 1η έκδ., Susaeta, ISBN 978-84-305-1820-3.</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Continuous Assessment: <ul style="list-style-type: none"> <li>- Participation: 10%</li> <li>- Written Assignments/ Tests: 30%</li> <li>- Practical examination: 10%</li> </ul> </li> <li>• Final Written Exams: 50%</li> </ul>
Language	Greek

25.

Course Title	Final Project I				
Course Code	PROJ209				
Course Type	Theoretical and Practical				
Level	Diploma / Higher Diploma				
Year / Semester	2 <sup>nd</sup> Year / 4 <sup>th</sup> Semester				
Teacher's Name	Panayiotou Eleni				
ECTS	6	Lectures / week	1	Laboratories / week	2
Course Purpose and Objectives	The main scope of this course, is to prepare the students to carry out a professional gardening design, applying the knowledge and skills acquired through the respective program of studies. The course is divided into 2 main sections; the first one refers to individual management, analysis and landscaping design while the second one focuses on the implementation of the best idea on a group level.				
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Appreciate the importance of an on-site landscaping analysis</li> <li>• Carry out a full presentation with regard to landscaping analysis</li> <li>• Collect, filter and analyze information from on-site and internet research</li> <li>• Come up with unique suggestions</li> <li>• Support ideas and suggestions based on actual evidence</li> <li>• Carry their final idea to a final design based on all the appropriate details</li> <li>• Listen and respect the opinions and ideas of other team members</li> <li>• Prove their skills and techniques as gardeners by implementing the plan and relative suggestions</li> </ul>				
Prerequisites	None	Required	None		
Course Content	<ul style="list-style-type: none"> <li>• On-site visits and analyses</li> <li>• Presentation of analysis</li> <li>• On-site and internet research and analysis of evidence</li> <li>• Innovation</li> <li>• Organisation plan and details</li> <li>• Choice of plants</li> <li>• Costing</li> <li>• Assessment of gardening designs</li> <li>• Choice of a potential idea / subject for discussion</li> <li>• On-site group construction</li> </ul>				
Teaching Methodology	This course is a combination of individual study, individual laboratory presence, group meetings and individual guidance. Part of this course is to be taught through lectures with the assistance of powerpoint presentations, guided discussions based on the students' active participation and individual and group assessment of the students' work.				
Bibliography	<p><b>Greek Bibliography</b></p> <ul style="list-style-type: none"> <li>• Υψηλάντης, Π.Γ. (2005), Project management, Προπομπός, ISBN: 960-7860-49-7.</li> <li>• Θεοφιλίδης, Χρήστος (2002), Η Συγγραφή Επιστημονικής Εργασίας: Από τη Θεωρία στην Πράξη, Γ. Δαρδάνος, ISBN: 960-7643-11-9.</li> <li>• Σαχίνη - Καρδάση, Α. (2004), Μεθοδολογία Έρευνας, ΒΗΤΑ Ιατρικές Εκδόσεις, 960-7308-80-8.</li> </ul>				

	<ul style="list-style-type: none"> <li>• Μερακλή, Βάσο (2011), Οδηγός για τη συγγραφή επιστημονικής εργασίας: Μελέτη/Έρευνα, KES College.</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Choice of innovative topic: 10%</li> <li>• Assessment of the design solution: 20%</li> <li>• Aesthetic and artistic dimension: 10%</li> <li>• Quality of presentation: 20%</li> <li>• Quality of execution by the entire group: 40%</li> </ul>
Language	Greek

26.

Course Title	Practical Training II			
Course Code	PRCT219			
Course Type	Practical			
Level	Diploma / Higher Diploma			
Year / Semester	2 <sup>nd</sup> Year / 4 <sup>th</sup> Semester			
Teacher's Name	Kordatos Charalambos			
ECTS	2	Lectures / week		Laboratories / week
Course Purpose and Objectives	With professional practice in real conditions and situations, this course aims to enrich the students' knowledge acquired through the theoretical part of the courses during the first and second year of their studies and help them capitalize on their practical skills within the specialization of the garden constructionist.			
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Apply in practice the theories that were taught during their studies</li> <li>• Acquire professional experience</li> <li>• Acquire confidence as garden designers and constructionists</li> <li>• Develop communication skills</li> <li>• Consolidate their knowledge in the area of gardening</li> <li>• Acquire more practical skills in the area of gardening</li> </ul>			
Prerequisites	None	Required	None	
Course Content	The students are engaged with gardening companies and organisations and perform the duties, tasks and responsibilities which are related to the subject of their studies. The tasks which the students undertake are in close alignment with the learning outcomes of the different courses of this program of studies.			
Teaching Methodology	The Practical Training takes place for 4 weeks during the summer, at a company / organization which is engaged with gardening and is approved by the college as an appropriate entity for the training to take place. The teacher of this course visits the students at the company where their practical training takes place and the students record their tasks performed during the practical training in the practical training handbook. The teacher also makes comments in this handbook while the company's employee responsible for the student also records a total assessment for the student's performance throughout the practical training session.			
Bibliography				
Assessment	The assessment of the practical training is based on the teacher's visits and his or her comments in the practical training handbook as well as the company's representative's total assessment. The combined result should either lead to the student succeeding or failing the module, and in the case of the latter, the student must repeat the practical training session over the following academic year.			
Language	Greek			

27.

Course Title	Analysis, Composition and Sustainable Landscape			
Course Code	GRLN318			
Course Type	Practical			
Level	Diploma / Higher Diploma			
Year / Semester	3rd Year / 5th Semester			
Teacher's Name	Panayiotou Eleni			
ECTS	5	Lectures / week		Laboratories / week 3
Course Purpose and Objectives	The aim of the course is to train students in teams on how to analyze large-scale public space for landscape designing. Students will study the characteristics of sites and come up as a team with sustainable landscape design proposals that apply to outdoor public spaces.			
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• collaborate constructively and productively in small groups on large-scale public landscaping studies</li> <li>• understand the factors that affect the sustainable landscaping of large-scale public spaces</li> <li>• assess each factor that affects sustainable landscape design and express an informed view on the design proposal presented</li> <li>• Construct a model of the design proposal</li> <li>• Understand that planning functionality should take into account the management of severe weather events such as floods and urban thermal springs.</li> <li>• Be able to understand that the design solution they propose can be used as a tool to tackle climate change.</li> <li>• Examine the sustainability of their designs in an urban or other landscape.</li> </ul>			
Prerequisites	None	Required	None	
Course Content	<ul style="list-style-type: none"> <li>• Visiting a study area</li> <li>• Analysis of location, geology and soil conditions</li> <li>• Assessment of flora and fauna of the study area</li> <li>• Assessment of meso- and micro-climate</li> <li>• Assessment of other green areas in the wider study area</li> <li>• Assessment of main and secondary roads in the study area</li> <li>• Assessment of major buildings and services in the area</li> <li>• Analysis of sunlight and wind</li> <li>• Assessment of attractive and unattractive viewing points</li> <li>• Hard and soft materials for covering soil</li> <li>• Study of factors that help the region adapt to climate change</li> <li>• Fences</li> <li>• Ideograms and design zones</li> <li>• Design of floor plans within focus on sustainability</li> <li>• Design sections</li> <li>• Planting plan</li> <li>• Model construction</li> </ul>			

	<ul style="list-style-type: none"> <li>• Preparation and presentation of the team's study</li> </ul>
Teaching Methodology	The content of this course will be taught through: PowerPoint presentations, the use of a board, guided discussions with the active participation of students, individual and team work on the part of students, and the use of a variety of visual and other teaching aids as required for the delivery of each unit. Visits to study sites are planned.
Bibliography	<p><b>Greek Bibliography:</b></p> <ul style="list-style-type: none"> <li>• Τσαλικίδης, Γιάννης Α. (2008), Αρχιτεκτονική τοπίου: Εισαγωγή στη θεωρία και στην εφαρμογή, Επίκεντρο, ISBN 978-960-458-016-3.</li> <li>• Βλάχος, Δημήτρης Ε. (2005), Περιβάλλον και ανάπτυξη: Διαλεκτικές σχέσεις και διεπιστημονικές προσεγγίσεις, Εναλλακτικές Εκδόσεις, ISBN 960-427-082-6.</li> <li>• Reiley, E., 2008. Φυτά και στοιχεία αρχιτεκτονικής τοπίου. Ίων</li> </ul> <p><b>English Bibliography:</b></p> <ul style="list-style-type: none"> <li>• Reid, Grant W. (2002), Landscape graphics: Plan, section and perspective drawing of landscape spaces, Watson - Guptill Publication, ISBN: 0823073335.</li> <li>• Yokohari, M., Murakami, A., Hara, Y., Tsuchiya, K. (2017), Sustainable Landscape Planning in Selected Urban Regions, ISBN 978-4-431-56445-4.</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Continuous Assessment: <ul style="list-style-type: none"> <li>- Participation: 20%</li> <li>- Individual Study: 20%</li> <li>- Midterm Team Study: 10%</li> </ul> </li> <li>• Final Team Study: 50%</li> </ul>
Language	Greek

Course Title	Photorealistic Digital Landscape Design			
Course Code	GRLN313			
Course Type	Practical			
Level	Higher Diploma			
Year / Semester	3 <sup>rd</sup> Year / 5 <sup>th</sup> Semester			
Teacher's Name	Panayiotou Eleni			
ECTS	6	Lectures / week		Laboratories / week 3
Course Purpose and Objectives	The main purpose of this course is to teach the students ways in creating photorealistic views of outdoor spaces through the use of Photoshop in order to help them become professional garden designers and communicate and present their ideas accordingly.			
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Know and use the tools and instructions of the Photoshop software program</li> <li>• Use combinations of colors for professional presentations in 2D plans</li> <li>• Design gardens, outdoor spaces and charts</li> <li>• Develop charts based on very detailed photorealistic views</li> <li>• Process and create final suggestions based on different forms of files such as jpg, pdf, psd and more</li> <li>• Present materials, surfaces and other details of gardening graphics</li> </ul>			
Prerequisites	COMP224	Required	None	
Course Content	<ul style="list-style-type: none"> <li>• Colour <ul style="list-style-type: none"> <li>- Principles of coloured design</li> <li>- Coding colours</li> <li>- Means and paper</li> <li>- Techniques</li> <li>- Shades</li> <li>- Effects</li> <li>- Materials and gardening finishing</li> <li>- Elements: trees, bushes and more</li> </ul> </li> <li>• Coloured designs for presentations <ul style="list-style-type: none"> <li>- Colour and synthesis</li> <li>- Approaches for the preparation of coloured designs</li> <li>- Digital coloured design</li> </ul> </li> <li>• Computer applications <ul style="list-style-type: none"> <li>- Photoshop</li> <li>- Digital design</li> </ul> </li> </ul>			
Teaching Methodology	Presentations and the use of the software programs, discussions, exercises, students' active participation and the use of different, various audio-visual equipment.			
Bibliography	<p><b>Greek Bibliography</b></p> <ul style="list-style-type: none"> <li>• Σαμαρας Β. Γιαννης., (2012), Adobe Photoshop Cs6 Βημα Προς Βημα, Γκιουρδας Μ. ISBN 978-960-512-646-9.</li> <li>• Brookes, John (2005), Αρχιτεκτονική κήπων: Από τη θεωρία στην πράξη, Ψύχαλος, ISBN 960-8455-04-9</li> <li>• Ingels, Jack E. (μετάφραση Γαγλία Ιωάννα, Ειρήνη Ραζή, Κονταξή Μίλυ, Σταυρούλα Μεταξά), (2004), Σχεδιασμός και μελέτες κήπων, 1η έκδ., Αθήνα, Ίων, τ.1, ISBN:960-411-352-6</li> </ul>			

	<ul style="list-style-type: none"> <li>• Wilson, Andrew, μετάφραση Δημήτριος Πετρόπουλος (2005), Ο κήπος, αρχιτεκτονική και σχεδιασμός, 1η έκδ., Ίριδα, ISBN 960-7926-55-2</li> <li>• Braun, Harald, μετάφραση Σταύρος Παπαδόπουλος (2010), Η διαμόρφωση του κήπου: 400 εντυπωσιακές ιδέες με κείμενο και φωτογραφίες, 1η έκδ., Θεσσαλονίκη, Μαλλιάρης Παιδεία, ISBN 978-960-457-429-2</li> </ul> <p><b>English Bibliography</b></p> <ul style="list-style-type: none"> <li>• Adobe Creative Team (2012), Adobe Photoshop CS6 Classroom in a Book, Adobe Press, ISBN: 978-0321827333.</li> <li>• Doyle, Michael E. (2007), Color Drawing: Design Drawing Skills and Techniques for Architects, Landscape Architects, and Interior Designers, 3<sup>rd</sup> ed., Wiley, ISBN: 978-0471741909.</li> <li>• Reid, Grant W. (2002), Landscape graphics: Plan, section and perspective drawing of landscape spaces, Watson - Guptill Publication, ISBN: 0823073335.</li> <li>• Jefferis, Alan (2011), Architectural Drafting and Design, Delmar Cengage Learning, 6th ed., ISBN: 978-1435481626.</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Continuous assessment: <ul style="list-style-type: none"> <li>- Participation: 20%</li> <li>- Assignments: 35%</li> </ul> </li> <li>• Final practical exams: 45%</li> </ul>
Language	Greek

29.

Course Title	Olericulture and Introduction to Hydroponic Crops				
Course Code	GRLN312				
Course Type	Theoretical and Practical				
Level	Higher Diploma				
Year / Semester	3 <sup>rd</sup> Year / 5 <sup>th</sup> Semester				
Teacher's Name	Antoniou Efrosini				
ECTS	6	Lectures / week	2	Laboratories / week	1
Course Purpose and Objectives	The aim of the course is to introduce students to the general principles of Olericulture for the growth, development, production, storage and processing of various vegetable families using different cultivation methods, for saving water and space. The principals of Hydroponics are also provided.				
Learning Outcomes	<p>By the end of the course, students are expected to be able to:</p> <ul style="list-style-type: none"> <li>• Understand the morphology and physiology of vegetables</li> <li>• Understand the relationship between vegetables and their environment, natural or controlled</li> <li>• Assess the state of the soil and its needed treatment</li> <li>• Identify the various substrates and hydroponic crop systems</li> <li>• Understand the needs of vegetables in fertilizers and water in both soil and hydroponic crops</li> <li>• Recognize the various enemies and diseases and control them in an appropriate manner</li> <li>• Perform the needed constructions in the vegetable garden</li> <li>• Identify and classify vegetables according to their group/family</li> <li>• Understand the time of harvesting, preserving and disposing of various kinds of vegetables (early, mid-season, late)</li> <li>• Select the right seed variety according to market needs</li> <li>• Describe the different ways of growing vegetables</li> <li>• Control the various weeds by the appropriate herbicide or by mechanical means</li> <li>• Follow the correct order of crop rotation</li> <li>• Produce compost from the vegetable residue of the vegetable gardens</li> <li>• Apply mulching methods to save water</li> <li>• Grow vegetable plants indoors and outdoors (greenhouses - low and high)</li> <li>• Understand that a solid commercial foundation can make growing vegetables a profitable business</li> </ul>				
Prerequisites	GRLN108	Required	None		
Course Content	<ul style="list-style-type: none"> <li>• The financial importance of vegetable gardens</li> <li>• The importance of vegetables as food</li> <li>• Classifying vegetables</li> <li>• Treating the soil</li> <li>• Covering the land</li> </ul>				

	<ul style="list-style-type: none"> <li>• Hydroponic layers</li> <li>• Equipment for the irrigation and hydroponic systems</li> <li>• Fertilizers, fertilization and nutritional solutions</li> <li>• Composting</li> <li>• The vegetables and their environment</li> <li>• Production and supply of seeds</li> <li>• Constructing a vegetable garden on soil</li> <li>• Multiplying the vegetables</li> <li>• Taking care of plans and irrigation</li> <li>• Harvesting, preserving and supplying vegetables</li> <li>• Controlling the various enemies and diseases</li> <li>• Solanaceous vegetables</li> <li>• Threaded vegetables</li> <li>• Legume vegetables</li> <li>• Bulb vegetables</li> <li>• Sizzling vegetables</li> <li>• Vegetables and cauliflowers</li> <li>• Gourd vegetables</li> <li>• Perennial vegetables</li> <li>• Green leafy vegetables</li> <li>• Different vegetables: okra, mushrooms and asparagus</li> </ul>
Teaching Methodology	<p>The content of this course will be taught through: PowerPoint presentations, the use of a board, guided discussions with the active participation of students, individual and team work on the part of students, and the use of a variety of visual and other teaching aids as required for the delivery of each unit. Laboratory as well as in appropriate gardening workshops in orchards, nurseries, etc. are planned.</p>
Bibliography	<p><b>Greek Bibliography:</b></p> <ul style="list-style-type: none"> <li>• Edward H. Reiley, Carroll L. Shry, μετάφραση: Ουρανία Κουτσιουρή (2008), Ανθοκομία και λαχανοκομία, Ίων, ISBN 978-960-411-615-7.</li> <li>• Μπλέτσος, Φώτιος Α. (2012), Πρακτική λαχανοκομία και παραδοσιακές ποικιλίες, 1η έκδ., Ζήτη, ISBN 978-960-456-312-8.</li> <li>• Κανάκης, Ανδρέας Γ. (2005), Γενική λαχανοκομία, 2η έκδ., ΑγροΤύπος ΑΕ, ISBN 960-7667-19-0.</li> <li>• Παρασκευόπουλος, Κοσμάς Π. (2003), Σύγχρονη λαχανοκομία, Ψύχαλος, ISBN 960-7920-01-5.</li> <li>• Εγχειρίδιο Υδροπονίας, (Εκπαιδευτικό Κέντρο Υδροπονίας Ι.Γ.Ε.) Έκδοση Γραφείο Τύπου και Πληροφοριών (102/2015-50), ISBN 13978-9963-50-261-5, Λευκωσία</li> <li>• Σάββας, Δ. 2010. Υδροπονικές καλλιέργειες εδάφους. Υδροπονία, Υποστρώματα, Αθήνα, Εκδόσεις Αγρότυπος.</li> </ul> <p><b>English Bibliography:</b></p> <ul style="list-style-type: none"> <li>• Jason Johns (2014), Hydroponics: A Beginners Guide To Growing Food Without Soil, CreateSpace Independent Publishing Platform, ISBN: 978-1502525857.</li> <li>• George F. Van Patten (2004), Hydroponic Basics, Van Patten</li> </ul>

	Publishing, ISBN: 978-1878823250.
Assessment	<ul style="list-style-type: none"> <li>• Continuous Assessment: <ul style="list-style-type: none"> <li>- Participation: 10%</li> <li>- Written Assignments / Tests: 30%</li> <li>- Practical examination: 10%</li> </ul> </li> <li>• Final Written Exams: 50%</li> </ul>
Language	Greek

30.

Course Title	Business Management and Planning in Gardening and Landscape Designing				
Course Code	GRLN304				
Course Type	Theoretical				
Level	Higher Diploma				
Year / Semester	3 <sup>rd</sup> Year / 5 <sup>th</sup> Semester				
Teacher's Name	Yerocostas Costas				
ECTS	5	Lectures / week	3	Laboratories / week	
Course Purpose and Objectives	The main purpose of this course is to introduce the students to the basic concepts and principles of business management, including the basic concepts and principles in writing business plans, with a specialized focus in gardening companies.				
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Know the basic concepts and definitions of business management</li> <li>• Know about entrepreneurship and small businesses</li> <li>• Know the basic principles of business management</li> <li>• Know the role of human resource management and professional relationships</li> <li>• Understand the role and usefulness of preparing business plans</li> <li>• Know about the basic data collection methods that can lead to a sound and solid business plan</li> <li>• Know about the main analytical methods of the market environment and apply them in practice</li> <li>• Know how the analysis of different financial/economics evidence is made and apply it in practice</li> <li>• Know about the main elements of a business plan and apply them in practice</li> <li>• Know about the main elements of a financial offer and apply them in practice</li> </ul>				
Prerequisites		Required			
Course Content	<ul style="list-style-type: none"> <li>• Understanding the system of business management</li> <li>• Understanding the business environment</li> <li>• Managing the business</li> <li>• Organising the business</li> <li>• Costing</li> <li>• Distributing</li> <li>• Promoting</li> <li>• Logistics</li> <li>• Aims of the business plan</li> <li>• Market analysis summary <ul style="list-style-type: none"> <li>- Market segmentation</li> <li>- Strategies for selecting market segments</li> <li>- Analysis of the business's services</li> <li>- Competition and buying traditions</li> <li>- Market research</li> </ul> </li> </ul>				

	<ul style="list-style-type: none"> <li>• Marketing strategy <ul style="list-style-type: none"> <li>- Sales strategy</li> <li>- Forecasting sales</li> </ul> </li> <li>• Financial plan <ul style="list-style-type: none"> <li>- Financing the beginning of the business</li> <li>- Conditions</li> <li>- Balance sheet</li> <li>- Break even analysis</li> <li>- Forecasting profit / loss</li> <li>- Forecasting cash-flow</li> <li>- Need for specific resources</li> </ul> </li> <li>• Business plan <ul style="list-style-type: none"> <li>- Prototype</li> </ul> </li> <li>• Examples of business plans for gardening <ul style="list-style-type: none"> <li>- Business plan for gardening and lawns</li> <li>- Business plan for nurseries</li> <li>- Business plan for the construction of an irrigation system</li> <li>- Plans for more services</li> <li>- More gardening plans</li> </ul> </li> </ul>
Teaching Methodology	Presentations and the use of the software programs, discussions, exercises, students' active participation and the use of different, various audio-visual equipment.
Bibliography	<p><b>Greek Bibliography</b></p> <ul style="list-style-type: none"> <li>• Θεοδωρόπουλος, Ανδρέας (2010), Στρατηγικός επιχειρηματικός σχεδιασμός: Πώς να πραγματοποιήσετε την ανάπτυξη της επιχείρησής σας, 2η έκδ., Προπομπός, ISBN 978-960-7860-25-5.</li> <li>• Μπουράντα, Δημητρίου Κ. (2003), Εισαγωγή στη διοίκηση επιχειρήσεων, Εκδόσεις Ε. Μπένου, ISBN:960-359-007-X.</li> <li>• Bennett, Roger (2001), Εισαγωγή στη Διοίκηση Επιχειρήσεων (Μάνατζμεντ), Κλειδάριθμος, ISBN: 960-209-537-7.</li> <li>• Tiffany, Paul (μετ. Αριστογείτων Γρηγοριάδης) (2008), Επιχειρηματικός σχεδιασμός (Business Plans) για πρωτάρηδες: Ένας οδηγός για όλους εμάς τους υπόλοιπους, 1η έκδ., Κλειδάριθμος, ISBN 978-960-461-198-0.</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Continuous assessment: <ul style="list-style-type: none"> <li>- Participation: 10%</li> <li>- Assignments: 20%</li> <li>- Mid-term written examination: 20%</li> </ul> </li> <li>• Final written exams: 50%</li> </ul>
Language	Greek

31.

Course Title	Management of Golf Courses, Sports Facilities and Parks			
Course Code	GRLN315			
Course Type	Theoretical and Practical			
Level	Higher Diploma			
Year / Semester	3rd Year / 5th Semester			
Teacher's Name	Kordatos Charalambos			
ECTS	4	Lectures / week	2	Laboratories / week
				1
Course Purpose and Objectives	The main aim of this course is to train the students on the management of golf courses, sports facilities and parks, giving them the necessary basis of knowledge and skills so that they can choose environmentally healthy solutions for the most effective and efficient management of such courses, facilities and parks.			
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Know the different types of grass based on hot or cold weather conditions</li> <li>• Create laws with different types of grass, such as ones based on seed or ready made</li> <li>• Decide for the irrigation practice based on the relationship between the soil and water, the quality of the water and the irrigation system</li> <li>• Decide for the use of different fertilizers, taking into consideration the soil chemical characteristics, such as its pH</li> <li>• Know how the ventilation of compressed soil takes place as well the use of relative equipment for such a process</li> <li>• Use the appropriate pesticides and herbicides for every possible situation</li> <li>• Create a time plan for the different tasks involved in the proper management of the lawn</li> <li>• Be able to understand the catastrophic consequence of building golf courses for the ecosystems and water resources of areas experiencing droughts and having limited water resources.</li> </ul>			
Prerequisites	GRLN112, GRLN205	Required		
Course Content	<ul style="list-style-type: none"> <li>• The different types of grass and their use</li> <li>• Installation of the lawn and renewal</li> <li>• Irrigation of the lawn</li> <li>• Use of fertilizers</li> <li>• Ventilation and surface application of different pesticides and herbicides</li> <li>• Illnesses and weeds and their control</li> <li>• Cutting the lawn</li> <li>• Time plan of necessary and appropriate tasks</li> <li>• Golf courses and sustainable management of water resources.</li> </ul>			
Teaching Methodology	This course takes place in a modern lecture room through lectures, discussions and the use of modern audiovisual means, through visits in golf			

	and park facilities as well as practice in gardening fields that are available to the college.
Bibliography	<p><b>Greek Bibliography</b></p> <ul style="list-style-type: none"> <li>• Σπαντιδάκης, Ιωάννης Γ. (2011), Χλοοτάπητες: Επιστήμη, τεχνική, διαχείριση, 2η έκδ., Αθήνα, Σταμούλη Α.Ε., ISBN 978-960-351-867-9</li> <li>• Stell, Elizabeth P. - μετάφραση Δ. Π. Κωστελένος (2000), Τα μυστικά του γόνιμου εδάφους: Ο οδηγός οργανικής καλλιέργειας, λίπανσης και δημιουργίας υγιούς και γόνιμου εδάφους για τον κήπο και το γκαζόν σας, Αθήνα, Ψύχαλος, ISBN 960-7920-49-X</li> <li>• Pycraft, David (μετ. Θανάσης Παπούλιας) [χ.χ.], Γκαζόν: Φυτά εδαφοκάλυψης: Τα ζιζάνια και η καταπολέμησή τους, Ψύχαλος, ISBN 960-7920-25-2.</li> </ul> <p><b>English Bibliography</b></p> <ul style="list-style-type: none"> <li>• Brown, Steward (2005), Sports Turf and Amenity Grassland Management, Crowood Press, ISBN-10: 1861267908</li> <li>• Barret, James (2003), Golf course irrigation: Environmental Design and Management Practices, Wiley, ISBN: 9780471148302.</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Continuous assessment: <ul style="list-style-type: none"> <li>- Participation: 10%</li> <li>- Tests and assignments: 30%</li> <li>- Mid-term practical examination: 10%</li> </ul> </li> <li>• Final written exams: 50%</li> </ul>
Language	Greek

32.

Course Title	Aromatic and Medicinal Plants			
Course Code	GRLN322			
Course Type	Theoretical and Practical			
Level	Higher Diploma			
Year / Semester	3rd Year / 6th Semester			
Teacher's Name	Antoniou Efrosini			
ECTS	3	Lectures / week	1	Laboratories / week
ECTS				1
Course Purpose and Objectives	The aim of the course is to introduce students to the basic principles of aromatic and medicinal plants in terms of their growth, development, propagation and flowering, as well as to the origin, morphology, physiology and production of essential oils of these plants.			
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Understand the morphology and physiology of aromatic plants</li> <li>• Understand the properties of aromatic and medicinal plants</li> <li>• Understand the relationship between plants and the environment</li> <li>• Assess the state of the soil and the ways to improve it</li> <li>• Understand different stages of harvesting, conservation, marketing and storage</li> <li>• Combat various enemies and diseases with the right formulations</li> <li>• Understand the exact needs of plants in water for higher yield and better essential oil quality</li> <li>• Understand the soil and climate requirements of plants</li> <li>• Understand which is the correct way of plant propagation</li> <li>• Understand which are the best planting seasons and planting practices</li> <li>• Understand the use and properties of each plant separately</li> <li>• Understand the right steps for cutting fresh plants for the market</li> <li>• Understand what is lifetime of a plantation and its replacement time (crop rotation)</li> <li>• Be familiar with native Cypriot herbs that are adapted to the weather of Cyprus.</li> <li>• Produce essential oils with the appropriate machinery and distillers</li> <li>• Correctly follow the health and safety regulations at the treatment sites</li> </ul>			
Prerequisites	None	Required	None	
Course Content	<p><b>Course outline</b></p> <ul style="list-style-type: none"> <li>• Historical review</li> <li>• Benefits and uses of aromatic plants and essential oils</li> </ul> <p>Aromatic plants</p> <ul style="list-style-type: none"> <li>• Cultivation of aromatic plants <ul style="list-style-type: none"> <li>o Menta</li> <li>o Lavender</li> <li>a Roses</li> <li>o Jasmine</li> <li>o Geraniums</li> <li>o Basil</li> <li>o Salvia</li> </ul> </li> </ul>			

- Citrus plants
  - o Orange
  - o Lemon
  - o Bitter orange
  - o Mandarin orange
  - o Bergamot orange
  - o Citrus
  - o Grapefruit
  - o Pomelo
  - o Kumquat
  
- Umbellifers
  - o Anise
  - o Fennel
  - o Dill
  - o Coriander
  - o Cumin
  
- Other herbs:
  - o Lemon balm
  - o Hyssop
  - o Rosemary
  - o Thyme
  - o Spartium
  - o Pyrethrum
  
- Exploitation of aromatic plants:
  - o Collection
  - o Drying
  
- Preservation packaging:
  - o Oregano
  - o Bay laurel leaves
  - o Chamomile
  - o Siderite
- Other herbs:
  - o Lindens
  - o Silver lime
  - o Diktamos
  - o Marjoram

Essential oils:

- Essential oil composition
- Essential oil biosynthesis
- Role of essential oils in plants
- Essential oil extraction:
  - o Distillation
  - o Liquid extraction
  - o Mechanical extraction
- Native aromatic plants of Cyprus**
- Analysis of essential oils
  - o Removal of terpenoids from essential oils
  - o Preserving essential oils

Teaching Methodology	The content of this course will be taught through: PowerPoint presentations, the use of a board, guided discussions with the active participation of students, individual and team work on the part of students, and the use of a variety of visual and other teaching aids as required for the delivery of each unit. Visits to places where students can observe aromatic and medicinal plants, identify them and work on their cultivation is planned.
Bibliography	<p><b>Greek Bibliography:</b></p> <ul style="list-style-type: none"> <li>• Βογιατζή - Καμβούκου, Ελένη Κ. (2004), Επιλογή αρωματικών και φαρμακευτικών φυτών, Θεσσαλονίκη, Σύγχρονη Παιδεία, ISBN 960-357-065-6</li> <li>• Κατσιώτης, Σταύρος (2010), Αρωματικά φαρμακευτικά φυτά και αιθέρια έλαια: Παραγωγή, επεξεργασία, μεταποίηση, αξιοποίηση, διεθνείς αγορές, αρωματοθεραπεία, αρωματοποιία, 1η έκδ., Θεσσαλονίκη, Κυριακίδη Αφοί, ISBN 978-960-467-186-1</li> <li>• Κουτσός, Θεόδωρος Β. (2006), Αρωματικά και φαρμακευτικά φυτά: Βοτανική ταξινόμηση: Οικολογία: Καλλιεργητικές οδηγίες: Χρήσεις: Αναφορά στη βιολογική και βιοδυναμική γεωργία, 1η έκδ., Θεσσαλονίκη, Ζήτη, ISBN 960-431-992-2.</li> <li>• Συλλογικό έργο (2001), Φαρμακευτικά και αρωματικά φυτά: Παραδοσιακές χρήσεις και δυνατότητες αξιοποίησής τους: Ζ τρίήμερο εργασίας, Κύπρος, Παραλίμνι, 21-25 Μαρτίου 1997, Αθήνα, Πολιτιστικό Ίδρυμα Ομίλου Πειραιώς, ISBN 960-244-061-9</li> <li>• Δόρδας Χ. (2012), Αρωματικά και Φαρμακευτικά Φυτά, Εκδόσεις Σύγχρονη Παιδεία, ISBN: 978-960-357-107-0.</li> <li>• Χατζηκυριάκου, Γ. (2007), Αρωματικά και Αρτυματικά Φυτά στην Κύπρο: από την αρχαιότητα μέχρι σήμερα, ISBN: 978-9963-42-851-9.</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Continuous Assessment: <ul style="list-style-type: none"> <li>- Participation: 10%</li> <li>- Written Assignments / Tests: 30%</li> <li>- Practical examination: 10%</li> </ul> </li> <li>• Final Written Exams: 50%</li> </ul>
Language	Greek

33.

Course Title	Nursery Production and Management				
Course Code	GRLN316				
Course Type	Theoretical and Practical				
Level	Higher Diploma				
Year / Semester	3 <sup>rd</sup> Year / 6 <sup>th</sup> Semester				
Teacher's Name	Bolla Androniki				
ECTS	4	Lectures / week	1	Laboratories / week	1
Course Purpose and Objectives	The main purpose of this course is to introduce the students to the practices and techniques in properly managing a nursery and train them in all of the possible tasks and responsibilities related to it, ranging from basic cultivation to trade.				
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Understand all the tasks that take place in a retail nursery</li> <li>• Acquire all the practical experiences related to the management of a nursery</li> <li>• Apply their knowledge in the cultivation of plants in a big scale, for trading purposes</li> <li>• Understand the principles guiding the management of the tasks and responsibilities associated with a nursery</li> <li>• Get acquainted with the financial and trading principles with regard to the cultivation, trade and promotion of the nursery</li> </ul>				
Prerequisites	None	Required	None		
Course Content	<ul style="list-style-type: none"> <li>• Introduction <ul style="list-style-type: none"> <li>- History of the nursery industry</li> <li>- The nursery industry</li> </ul> </li> <li>• Nursery tasks <ul style="list-style-type: none"> <li>- Nursery tasks</li> <li>- Plant production</li> <li>- Soil management and outdoor plants</li> <li>- Irrigation of nursery plants</li> <li>- Managing material for the development of plants in pots</li> <li>- Amending the increase and development of nursery plants</li> <li>- Checking for illnesses and weeds</li> <li>- Nursery warehousing</li> <li>- Compost production and usage</li> </ul> </li> <li>• Nursery management and finances <ul style="list-style-type: none"> <li>- Applied management of nurseries</li> <li>- Choice of nursery location</li> <li>- Organisation and development of the nursery</li> <li>- Legislation, rules and regulations, codes</li> <li>- Financial management</li> <li>- Wholesale trade of nursery plants</li> <li>- Management of the nursery interior space</li> </ul> </li> </ul>				
Teaching Methodology	The course is taught through in-class lectures, the use of modern audio-visual methods and visits in nurseries where the students can see the way of managing, organizing and developing one				

Bibliography	<ul style="list-style-type: none"> <li>• Μαυρογιαννόπουλος, Γεώργιος Ν. (2005), Θερμοκήπια: Περιβάλλον, υλικά, κατασκευή, εξοπλισμός, 4η έκδ., Αθήνα, Σταμούλη Α.Ε., ISBN 960-351-620-1</li> <li>• Ολύμπιος, Χρίστος Μ. (2001), Η τεχνική της καλλιέργειας των κηπευτικών στα θερμοκήπια, Αθήνα, Σταμούλη Α.Ε., ISBN 960-351-375-X</li> <li>• Κανάκης, Ανδρέας Γ. (2004), Καλλιέργεια λαχανικών στο θερμοκήπιο: Αγγούρια, κολοκύθια, καρπούζια, πεπόνια, φράουλα, Αθήνα, Σταμούλη Α.Ε., ISBN 960-351-517-5</li> <li>• Boodley, James W. (μετ. Γαγλία Ιωάννα, Ειρήνη Ραζή, Κονταξή Μίλυ) (1999), Θερμοκηπιακές εγκαταστάσεις, 2η έκδ., Ίων, τ.1, ISBN 960-405-991-2.</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Continuous assessment: <ul style="list-style-type: none"> <li>- Participation: 10%</li> <li>- Tests and assignments: 30%</li> <li>- Mid-term practical examination: 10%</li> </ul> </li> <li>• Final written exams: 50%</li> </ul>
Language	Greek

34.

Course Title	Management of Small Size Enterprise			
Course Code	BUSS310			
Course Type	Theoretical			
Level	Higher Diploma			
Year / Semester	3 <sup>rd</sup> Year / 6 <sup>th</sup> Semester			
Teacher's Name	Yerocostas Costas			
ECTS	4	Lectures / week	2	Laboratories / week
Course Purpose and Objectives	The main purpose of this course is to cover important areas which relate to small businesses and ways of organizing them so as to maximize their potential for success.			
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Understand the availability of entrepreneurial opportunities</li> <li>• Understand the factors that make a family business unique</li> <li>• Understand the concept of franchising</li> <li>• Understand the reasons that lead to the start of a new business, the purchase of an existing business and the purchase of a franchise agreement</li> <li>• Define competitive advantages</li> <li>• Discuss the nature of market research</li> <li>• Define the elements that lead to the business positioning within a market/industry</li> <li>• Describe the scope and content of financial statements</li> <li>• Discuss the role that supply and demand have in defining an ideal selling price for a product or service</li> <li>• Define the basic necessities and characteristics of an accounting system</li> <li>• Describe task cycles within a small business</li> <li>• Define and explain the nature risk and risk management</li> <li>• Examine and asses the entrepreneurial activities from a number of different angles</li> </ul>			
Prerequisites	None	Required	None	
Course Content	<ul style="list-style-type: none"> <li>• Entrepreneurship <ul style="list-style-type: none"> <li>- Entrepreneurial life</li> <li>- Entrepreneurial integrity: a gate that leads to opportunities for small businesses</li> </ul> </li> <li>• Starting from the beginning or participation in an existing business <ul style="list-style-type: none"> <li>- Beginning of a business</li> <li>- Franchise and purchase</li> <li>- Family business</li> </ul> </li> <li>• Developing the entrepreneurial plan of the new business <ul style="list-style-type: none"> <li>- The entrepreneurship plan: implementing the dream</li> <li>- Marketing plan</li> <li>- Human resource management plan: managers, owners, directors and allies</li> <li>- Positioning plan</li> <li>- Financial plan: projecting the needs</li> <li>- Financial plan: searching for sources of funds</li> </ul> </li> </ul>			

	<ul style="list-style-type: none"> <li>- Designing the products and services of the business</li> <li>• Focusing on the customer: marketing development strategies</li> <li>- Relationships with customers: the main ingredient</li> <li>- Plans for products and distribution</li> <li>- Decisions with regard to cost and credit/debit</li> <li>- Promotion plan</li> <li>- International marketing</li> <li>• Managing small business development</li> <li>- Professional management of the entrepreneurial business</li> <li>- Human resource management</li> <li>- Functional management</li> <li>- Risk management in a small business</li> <li>• Understanding the numbers</li> <li>- Managing the assets of the business</li> <li>- Assessing the performance of the business</li> </ul>
Teaching Methodology	Lectures, demonstration, discussion, group exercises and assignments, education visits, guest presentations.
Bibliography	<p><b>Greek Bibliography</b></p> <ul style="list-style-type: none"> <li>• Bennett, Roger (2001), Εισαγωγή στη Διοίκηση Επιχειρήσεων (Μάνατζμεντ), Κλειδάριθμος, ISBN: 960-209-537-7.</li> <li>• Μπουράντα, Δημητρίου Κ. (2003), Εισαγωγή στη διοίκηση επιχειρήσεων, Εκδόσεις Ε. Μπένου, ISBN: 960-359-007-Χ.</li> <li>• Θανόπουλος, Γιάννης Ν. (2009), Επιχειρηματική ηθική και δεοντολογία: Στην εποχή της εταιρικής διακυβέρνησης, Interbooks, ISBN: 978-960-390-120-2.</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Continuous assessment: <ul style="list-style-type: none"> <li>- Participation: 10%</li> <li>- Tests and assignments: 40%</li> </ul> </li> <li>• Final written exams: 50%</li> </ul>
Language	Greek

35.

Course Title	Tropical and Subtropical Plants				
Course Code	GRLN323				
Course Type	Theoretical and Practical				
Level	Higher Diploma				
Year / Semester	3 <sup>rd</sup> Year / 6 <sup>th</sup> Semester				
Teacher's Name	Bolla Androniki				
ECTS	4	Lectures / week	1	Laboratories / week	1
Course Purpose and Objectives	The aim of the course is to provide students with the basic knowledge on the morphology and physiology of tropical and subtropical plants, in terms of their growth, propagation, and fruit production.				
Learning Outcomes	<p>By the end of the course, students are expected to be able to:</p> <ul style="list-style-type: none"> <li>• Understand the morphology and physiology of tropical and subtropical plants</li> <li>• Understand the effects of water and microclimate</li> <li>• Understand the various ways of cultivation and propagation</li> <li>• Apply techniques for planting and pruning</li> <li>• Understand the differences between tropical and subtropical plants</li> <li>• Understand how to harvest, pack and store</li> <li>• Understand the names of tropical and subtropical plants and trees for those that produce fleshy fruits and nuts.</li> <li>• Understand the water needs of these trees so as to be able to decide whether they should be grown in areas that are experiencing water scarcity.</li> </ul>				
Prerequisites	GRLN219 Arboriculture	Required	None		
Course Content	<p><b>Course outline</b></p> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Definition of Tropical and Subtropical Plants</li> <li>• Categories of Tropical and Subtropical Plants and Trees: Fleshy fruits: <ul style="list-style-type: none"> <li>o bananas</li> <li>o mango</li> <li>o avocado</li> <li>o lotus</li> <li>o prickly pear</li> <li>o litchi</li> <li>o papaya</li> <li>o date palm</li> <li>o dragon fruit</li> <li>o cherimoya</li> </ul> </li> <li>Categories of Tropical and Subtropical Plants and Trees: Non-fleshy fruits: <ul style="list-style-type: none"> <li>o macadamia</li> <li>o pecan walnut</li> <li>o walnut</li> <li>o almond</li> <li>o cashew</li> </ul> </li> <li>• Tropical / Subtropical trees:</li> </ul>				

	<ul style="list-style-type: none"> <li>○ their parts</li> <li>○ the environment of trees</li> <li>○ installation of an orchard</li> <li>○ cultivation systems</li> <li>○ pruning for shape and fruit production</li> <li>○ pollination - external and internal factors</li> <li>○ growth of the fruit</li> <li>○ harvesting and storage of fruits</li> <li>○ combating enemies and diseases</li> <li>○ spraying materials</li> <li>○ nutrition and assimilation</li> <li>○ <b>Water needs of tropical and subtropical plants.</b></li> </ul>
Teaching Methodology	The content of this course will be taught through: PowerPoint presentations, the use of a board, guided discussions with the active participation of students, individual and team work on the part of students, and the use of a variety of visual and other teaching aids as required for the delivery of each unit. Visits to places where students can observe tropical and subtropical plants, identify them and work on their cultivation is planned.
Bibliography	<p><b>Greek Bibliography:</b></p> <ul style="list-style-type: none"> <li>• Ποντίκης, Κωνσταντίνος Α. (2001), Ειδική δένδροκομία: Τροπικά φυτά, 1η έκδ., Σταμούλη Α.Ε., τ.5, ISBN 960-351-379-2.</li> <li>• Βασιλακάκης, Μ. (2004), Γενική και Ειδική Δένδροκομία, Γαρταγάνης Διονυσίος, ISBN: 9607013271.</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Continuous Assessment: <ul style="list-style-type: none"> <li>- Participation: 10%</li> <li>- Written Assignments / Tests: 30%</li> <li>- Practical examination: 10%</li> </ul> </li> <li>• Final Written Exams: 50%</li> </ul>
Language	Greek

Course Title	3D Computer Aided Landscape Modelling		
Course Code	GRLN320		
Course Type	Practical		
Level	Higher Diploma		
Year / Semester	3 <sup>rd</sup> Year / 6 <sup>th</sup> Semester		
Teacher's Name	Panayiotou Eleni		
ECTS	4	Lectures / week	Laboratories / week 3
Course Purpose and Objectives	The main purpose of this course is to apply the knowledge and skills acquired from previous courses towards the creation of 3D designs with the aid of the professional software AutoCAD 3D and 3D StudioMAX. Upon the completion of this course, the students will be able to transform their 2D plans to 3D plans and present their suggestion/proposal by modelling the end result as this is going to appear during the day, night, the 4 weather seasons with the aid of material, lighting and shading techniques.		
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Know and use the professional software programs AutoCAD and 3D StudioMAX</li> <li>• Create appropriate 3D plans based on corresponding 2D plans</li> <li>• Apply 3D techniques in digital form to gardens and exterior spaces</li> <li>• Add effects, such as color, texture, shading and more</li> <li>• Present their suggestions/proposals in 3D models and in different conditions, e.g. day, night, weather seasons</li> </ul>		
Prerequisites	GRLN318	Required	None
Course Content	<ul style="list-style-type: none"> <li>• AutoCAD 3D <ul style="list-style-type: none"> <li>- Introduction to 3D and coordinates</li> <li>- General principles in 3D design</li> <li>- Depictions of 3D models</li> <li>- Space and level of planning in 3D form</li> <li>- Creation of 3D objects based on the corresponding 2D design</li> <li>- Design views and axonometric depictions</li> <li>- Moving and rotating</li> <li>- Design, composition and filter of specific spatial parts</li> <li>- Creation, process and amendment</li> <li>- Sections</li> <li>- 3D examples</li> <li>- 3D lines and surfaces</li> <li>- Adjusting elements</li> <li>- Appropriate projections</li> <li>- Model and design presentation</li> <li>- Photorealistic views</li> <li>- Material: colour, texture and scale</li> <li>- Creation and amendment of bookcase material</li> <li>- Adjustment of the environment, sun, sky and background</li> <li>- Creation of 3D models based on photographs</li> <li>- Creation of decorative objects</li> <li>- Photorealistic special techniques</li> </ul> </li> <li>• 3D StudioMAX</li> </ul>		

	<ul style="list-style-type: none"> <li>- Introduction</li> <li>- Modelling basics</li> <li>- Modifiers' basics</li> <li>- Parametric tools for the design of architectural plans</li> <li>- Importing files</li> <li>- Cameras</li> <li>- Animation</li> <li>- Surface materials</li> <li>- Realistic surface materials</li> <li>- Rendering; scanline and mental ray</li> <li>- Standard lighting</li> <li>- Project scenario</li> <li>- V-ray</li> </ul>
Teaching Methodology	Presentations and the use of the software programs, discussions, exercises, students' active participation and the use of different, various audio-visual equipment.
Bibliography	<p><b>Greek Bibliography</b></p> <ul style="list-style-type: none"> <li>• Τζουβαδάκης, Ιωάννης (2007), 2D &amp; 3D σχέδιο στο Autocad: 25 επιλεγμένα παραδείγματα σχεδίασης έργων μηχανικού, Συμμετρία, ISBN 978-960-266-193-2.</li> <li>• Χρόνης Λουλάκης (2013), 3ds Max Design - Οδηγός εκμάθησης για κτιριακή σχεδίαση, Εκδότης: Λουλάκης Πολυχρόνης &amp; Συνεργάτες Ε.Ε.Σ.</li> <li>• Νικήτα, Μαργαρίτα (2011), 3ds MAX 2012: Ο φωτορεαλισμός γρήγορα και απλά, Κλειδάριθμος, ISBN 978-960-461-450-9.</li> <li>• Κάππος, Γιάννης Θ. (2015), Εισαγωγή στο AutoCAD 2015: Ό,τι χρειάζεται ο χρήστης που ξεκινά με το AutoCAD, Κλειδάριθμος, ISBN 978-960-461-646-6.</li> <li>• Onstott, Scott. (μετ. Αγαμέμνων Μήλιος) (2011), AutoCAD 2012: Οπτικός οδηγός: Μάθετε το AutoCAD γρήγορα και εύκολα, Γκιούρδας Μ., ISBN 978-960-512-632-2.</li> </ul> <p><b>English Bibliography</b></p> <ul style="list-style-type: none"> <li>• Gindis, Elliot (2011), Up and Running with AutoCAD 2012: 2D and 3D Drawing and Modeling, Academic Press, ISBN: 978-0123870292.</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Continuous assessment: <ul style="list-style-type: none"> <li>- Presence and participation in lectures: 20%</li> <li>- Tests and assignments: 30%</li> </ul> </li> <li>• Final practical exams: 50%</li> </ul>
Language	Greek

37.

Course Title	Urban Forestry				
Course Code	GRLN324				
Course Type	Theoretical and Practical				
Level	Higher Diploma				
Year / Semester	3 <sup>rd</sup> Year / 6 <sup>th</sup> Semester				
Teacher's Name	Kordatos Charalambos				
ECTS	5	Lectures / week	2	Laboratories / week	1
Course Purpose and Objectives	The course deals with the basic principles of tree maintenance in the urban environment and aims to introduce students to the theory and practice of tree management in the urban and suburban environment.				
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Understand the role and importance of forests in the urban environment</li> <li>• Understand the value of tree maintenance in parks and gardens</li> <li>• Engage in urban conservation and management of trees</li> <li>• Apply tree-based technologies and tree care techniques in urban areas</li> <li>• Employ formal and informal social support to help with tree care in the city</li> <li>• Understand the combination of the four tree attributes: shape, size, texture and color</li> <li>• Be aware of the ecological peculiarities of the city</li> <li>• Identify the enemies and diseases of trees and fight them with the appropriate formulation</li> <li>• Understand the limits of tree growth in a dry-warm environment and in saline soils</li> </ul>				
Prerequisites	GRLN219, GRLN218	Required	None		
Course Content	<p><b>Course outline</b></p> <p>Urban landscape design</p> <ul style="list-style-type: none"> <li>• Principles and practices of sustainable landscape design</li> <li>• Construction and maintenance</li> <li>• Sustainable urban landscape design</li> <li>• Conservation of urban water resources, rainwater drainage</li> <li>• Landscaping for areas with high fire risk</li> <li>• Reusable materials, recycling and repurchase</li> <li>• Upgraded urban landscaping with minimal use of workforce and materials</li> <li>• Reduction of negative environmental impacts</li> </ul> <p>Theory and practical approach of detailed inventory of trees</p> <ul style="list-style-type: none"> <li>• The history of modern urban forestry</li> <li>• Forests as cultural landscape</li> <li>• Urban sustainability and urban forestry</li> <li>• Urban forests, public health and healthy recreation environments, management of trees in public spaces</li> </ul> <p>Practice</p> <ul style="list-style-type: none"> <li>• Tree maintenance</li> <li>• Roads, Avenues, Parks, Forests</li> <li>• Evaluation of Trees</li> </ul>				

	<ul style="list-style-type: none"> <li>• Estimation and Reduction of Risk</li> <li>• Legal Aspects Concerning Trees</li> <li>• Methods of estimating trees</li> <li>• Area Assessment</li> <li>• Voluntary Organizations for Trees</li> <li>• Priority Action Plans and Emergency Response Plans</li> </ul>
Teaching Methodology	The content of this course will be taught through: PowerPoint presentations, the use of a board, guided discussions with the active participation of students, individual and team work on the part of students, and the use of a variety of visual and other teaching aids as required for the delivery of each unit. Visits to urban and suburban forested areas where students can apply tree management techniques is planned.
Bibliography	<p><b>Greek Bibliography:</b></p> <ul style="list-style-type: none"> <li>• Καϊλίδης, Δημήτριος Σ. (2005), Ασθένειες των δέντρων, δασών και πάρκων, 1η έκδ., Θεσσαλονίκη, Χριστοδουλίδη, ISBN 960-8183-51-0</li> <li>• Gilman, Edward F. - μετάφραση Σωτηροπούλου Βασιλική (2001), Κλάδεμα δέντρων αστικού και προαστιακού τοπίου: Ένας εικονογραφημένος οδηγός, Αθήνα, Ίων, ISBN 960-411-133-7.</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Continuous Assessment: <ul style="list-style-type: none"> <li>- Participation: 10%</li> <li>- Written Assignments/ Tests: 30%</li> <li>- Practical examination: 10%</li> </ul> </li> <li>• Final Written Exams: 50%</li> </ul>
Language	Greek

38.

Course Title	Final Project II			
Course Code	PROJ318			
Course Type	Theoretical			
Level	Higher Diploma			
Year / Semester	3 <sup>rd</sup> Year / 6 <sup>th</sup> Semester			
Teacher's Name	Panayiotou Eleni			
ECTS	6	Lectures / week	2	Laboratories / week
Course Purpose and Objectives	The aim of the course is assist students to prepare a final specialized landscape project which will be presented in front of to a three-member committee as proof of the know-how and skills of students gained during the Program.			
Learning Outcomes	Upon successful completion of the Diploma Thesis, the students will have covered all the relevant topics of the Program and will be subjected to an evaluation for the skills gained.			
Prerequisites	None	Required	None	
Course Content	<ul style="list-style-type: none"> <li>• Assignment of Diploma Thesis</li> <li>• Initial research on the background and exploration of the subject</li> <li>• Analysis of alternative and possible paths</li> <li>• Submission of an action plan</li> <li>• Progress assessment of work under the supervision and guidance of the Supervisor</li> </ul>			
Teaching Methodology	The course is a combination of a personal study, an individual workshop, group meetings and individual courses with the program's teachers. Students will work independently, under the supervision and guidance of the Supervisor			
Bibliography	<p><b>Greek Bibliography:</b></p> <ul style="list-style-type: none"> <li>• Ypsilantis, Π.Γ. (2005), Project Management, Pre-Post, ISBN: 960-7860-49-7.</li> <li>• Sachini - Kardasi, A. (2004), Research Methodology, BETA Medical Publications, 960-7308-80-8.</li> <li>• Meraklis, Vasos (2011), Guide to Writing Scientific Work: Study / Research, KES College</li> </ul>			
Assessment	<ul style="list-style-type: none"> <li>• Completeness of Analysis: 30%</li> <li>• Novelty: 10%</li> <li>• Quality: 10%</li> <li>• Aesthetics - Artistic Dimension: 20%</li> <li>• Presentation Quality: 15%</li> <li>• Budget Balance: 15%</li> </ul>			
Language	Greek			

Course Title	Introduction to Environmental Science				
Course Code	ENVR111				
Course Type	Theoretical				
Level	Diploma				
Year / Semester	Elective				
Teacher's Name	Sarris Dimitrios				
ECTS	4	Lectures / week	2	Laboratories / week	
Course Purpose and Objectives	The aim of the course is to introduce students to the concept of sustainability, for the sustainable management of natural resources through the understanding of the structure and function of the natural and anthropogenic environment and their interaction. In addition, to identify the problems that have arisen from this interaction, as well as the ways in which these problems can be addressed.				
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Understand which are the available natural resources of the planet, their origin, structure and function</li> <li>• Understand the processes of evolution of the natural environment and the interaction between its components (ground substrate, soil, atmosphere, climate, aquatic element, ecosystems)</li> <li>• Recognize the characteristics of the Mediterranean environment in order to understand the major threats it faces and the needed policies to protect it</li> <li>• Understand the ways in which human activities affect the elements of the natural environment, and when and how they cause its degradation</li> <li>• Perceive modern means by which to address critical problems for the future of the planet in areas such as energy, pollution, disturbance of ecosystem balance to achieve sustainable development</li> <li>• understand what climate change is, what are the reduction measures and the measures which need to be taken.</li> </ul>				
Prerequisites	None	Required	None		
Course Content	<p><i>Natural Environment</i>  Economic activity and Environment, Natural Resources, Climate Change, Non-Renewable Natural Resources, Renewable Natural Resources, Use - Management of Natural Resources, Sustainability, Sustainable Development, Principles of Sustainable Development, Natural Resources and Sustainability, Natural Environment, Earth, Atmosphere-Climate-Microclimate, Climate Change, Geological Processes, Soil-Subsoil, Water, Hydrological Cycle, Water Management, Ecosystems - Types, Ecological succession, Bearing capacity, Biogeochemical cycles, Types of terrestrial ecosystems, Threats for the Mediterranean Ecosystems and their Protection.</p> <p><i>Anthrogenic Environment</i>  The Activity of the Humans on the Planet, Types of Societies and Consumption, Types of Human Environment, Agricultural Exploitation, Urban - Structured Environment, Industrial Environment, Mining Areas, Urbanization, Typical Problems of Structured Environment Management, Environmental Degradation, Air Pollution, Soil, Water, Quantity - Water</p>				

	Quality, Energy-Transport-Water Supply, Sewerage, Energy Production and Consumption, Energy Saving – Renewable Energy Systems, Urban Waste, Environmental Hazards, Environmental Management Systems, Environmental Impact Assessment, Legislation and Environmental Protection Agencies.
Teaching Methodology	The content of this course will be taught through: PowerPoint presentations, the use of a board, guided discussions with the active participation of students, individual and team work on the part of students, and the use of a variety of visual and other teaching aids as required for the delivery of each unit.
Bibliography	<p><b>Greek Bibliography:</b></p> <ul style="list-style-type: none"> <li>• Αριανούτσου Μ. 1999. Εισαγωγή στο Φυσικό και Ανθρωπογενές Περιβάλλον. Τόμος Α΄: Το Φυσικό Περιβάλλον, ΕΑΠ, Πάτρα.</li> <li>• Αραβαντινός Α., Βλαστός Θ., Εμμανουήλ Δ., Μαρίνος-Κουρής Δ., Μέμος Κ., Σκίκος Γ., Σμπόνιας Κ., Τσούτσος Θ (1999) Εισαγωγή στο Φυσικό και Ανθρωπογενές Περιβάλλον, τόμος Β 1, Ελληνικό Ανοικτό Πανεπιστήμιο, Πάτρα.</li> <li>• Καραμέρης Κ. 2008. Διαχείριση και Προστασία Περιβάλλοντος. Κέντρα Εκπαίδευσης Ενηλίκων. ΥΠΕΠΘ.</li> <li>• Συλλογικό έργο (2014), Γη, ένας μικρός και εύθραυστος πλανήτης, ISBN 978-960-01-1607-6.</li> <li>• Αυλωνίτης Δ., Αυλωνίτης Σ (2014), Προστασία Περιβάλλοντος, ISBN 978-960-508-114-0</li> </ul> <p><b>Αγγλική Βιβλιογραφία:</b></p> <ul style="list-style-type: none"> <li>• G. Tyler Miller (2010), Environmental Science, Cengage Learning, ISBN: 978-0495560166.</li> <li>• Jeffrey W. Hughes (2007), Environmental Problem Solving: A How-To Guide, Vermont, ISBN: 978-1584655923.</li> <li>• Singh, S.N. (2009), Climate Change and Crops (Environmental Science and Engineering), ISBN: 978-3540882459.</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Continuous Assessment: <ul style="list-style-type: none"> <li>- Participation: 10%</li> <li>- Written Assignments / Projects: 40%</li> </ul> </li> <li>• Final Written Exams: 50%</li> </ul>
Language	Greek

Course Title	Viticulture – Oenology				
Course Code	BIPR210				
Course Type	Theoretical and Practical				
Level	Diploma / Higher Diploma				
Year / Semester	Elective				
Teacher's Name	Antoniou Efrosini				
ECTS	4	Lectures / week	1	Laboratories / week	1
Course Purpose and Objectives	The aim of the course is to introduce students to the basic principles of viticulture and winemaking.				
Learning Outcomes	<p>By the end of the course, students are expected to be able to:</p> <ul style="list-style-type: none"> <li>• Possess the basic knowledge of viticulture</li> <li>• Practice cultivation, development and protection of the vineyards</li> <li>• Understand the basic principles of winemaking</li> <li>• Understand the benefits of wine products for human health</li> </ul>				
Prerequisites	None	Required	None		
Course Content	<p><b>Course outline</b></p> <ul style="list-style-type: none"> <li>• Introduction: Viticulture in Cyprus, the EU and internationally</li> <li>• Economic role of viticulture</li> <li>• Health benefits of wine products</li> <li>• Botanical classification, morphology and anatomy of the vine</li> <li>• Developmental cycle – Reproduction cycle</li> <li>• Multiplication, physiology, cultivation and management of vineyards</li> <li>• Importance of climate and soil</li> <li>• Plantation of vineyards (in general)</li> <li>• Cultivation practices <ul style="list-style-type: none"> <li>o Pruning</li> <li>o Grafting</li> <li>o Irrigation</li> <li>o Soil fertilization</li> <li>o Plant Protection (Pests and Diseases of the Vineyard)</li> </ul> </li> <li>• Cultivation of vines <ul style="list-style-type: none"> <li>o Specifications to be followed</li> <li>o Plantation of organic vineyards</li> <li>o Land management</li> <li>o Nourishment and fertilization of plants</li> <li>o Water management</li> <li>o Plant protection methods</li> <li>o Conditions for harvesting and transporting the grape at the winery</li> </ul> </li> <li>• Maturation of the grape and harvesting</li> <li>• Grapes as the raw material of winemaking</li> <li>• Varieties of wine and the main wine-growing regions of Cyprus</li> <li>• Mechanical and chemical treatments during winemaking (yeast - alcoholic fermentation, malolactic fermentation) - Vinification techniques</li> <li>• Wine maturing in barrel - Chemical composition, physicochemical phenomena, aging of wines</li> <li>• Types of wines</li> <li>• Bottling and storage - Maintenance of the bottle in the wine cellar</li> </ul>				
Teaching Methodology	The content of this course will be taught through: PowerPoint presentations, the use of a board, guided discussions with the active participation of students, individual and team work on the part of students, and the use of a				

	variety of visual and other teaching aids as required for the delivery of each unit. Visits to places where students can observe and practice Viticulture – Oenology technics is planned.
Bibliography	<p><b>Greek Bibliography:</b></p> <ul style="list-style-type: none"> <li>• Παναγόπουλος, Χρήστος (2007), Ασθένειες καρποφόρων δέντρων και αμπέλου, Εκδόσεις Έμβρυο, ISBN: 978-960-351-677-4.</li> <li>• Τσακίρης, Αργύρης Ν. (2011), Αμπελουργία και οινοποίηση: συμβατική, βιολογική, βιοδυναμική, Αθήνα, Ψύχαλος, ISBN: 978-960-8455-85-6.</li> <li>• Hoffman, J.B. (2003), Αμπελουργία: Βιολογική Καλλιέργεια, Αθήνα, Ψύχαλος, ISBN:978-960-8336-10-0.</li> <li>• Τζανακάκης, Μ.Ε. (2014), Έντομα Καρποφόρων Δέντρων και Αμπέλου, Εκδόσεις ΑγρόΤυπος, ISBN: 960-7667-07-7.</li> <li>• Τσέτουρας Παναγιώτης Λ. (2009), Οικολογικό κρασί και βιολογική καλλιέργεια αμπέλου, Εκδόσεις Α. Σταμούλης, ISBN: 978-960-351-784-9.</li> <li>• Τσέτουρας Παναγιώτης Λ. (2008), Οινοτεχνία: Η επιστήμη του κρασιού στην πράξη: ISO 22000, Εκδόσεις Α. Σταμούλης, ISBN: 978-960-351-728-3.</li> </ul> <p><b>English Bibliography:</b></p> <ul style="list-style-type: none"> <li>• Markus Keller (2015), The Science of Grapevines, Second Edition: Anatomy and Physiology, Academic Press, ISBN: 978-0124199873.</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Continuous Assessment: <ul style="list-style-type: none"> <li>- Participation: 10%</li> <li>- Written Assignments/ Tests: 30%</li> <li>- Practical examination: 10%</li> </ul> </li> <li>• Final Written Exams: 50%</li> </ul>
Language	Greek

41.

Course Title	Liquid and Solid Waste Management			
Course Code	ENVR204			
Course Type	Theoretical			
Level	Diploma / Higher Diploma			
Year / Semester	Elective			
Teacher's Name	Sarris Dimitrios			
ECTS	4	Lectures / week	2	Laboratories / week
Course Purpose and Objectives	<p>The course introduces students to the basic characteristics of waste, that waste is valuable resources and the basic technologies used in the treatment of liquid and solid waste.</p> <p>Its aim is to teach students the sustainable management of liquid and solid waste, including reducing waste generation, waste treatment and re-use, in order to increase the 'lifespan' of products and resources. The lesson focuses on waste generated by the gardening industry and resources that they can be reused.</p>			
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Understand the characteristics of liquid and solid waste</li> <li>• Understand why it is necessary to process liquid and solid waste</li> <li>• Identify the stages of treatment of liquid and solid waste</li> <li>• Understand the basic technologies used in the treatment of liquid, solid waste</li> <li>• Evaluate, based on the quality and type of waste, which methods or combinations of methods should be used to process them</li> <li>• Understand that priority is to reduce waste generation</li> <li>• Familiarize themselves with policies about the reduction of waste pollution</li> <li>• Understand what waste is produced by as a landscaper and how they can manage them</li> <li>• Understand what is the extension of product life</li> <li>• Understand about the management of grey, yellow and black water and the re-use of recycled water for irrigation.</li> </ul>			
Prerequisites	None	Required	None	
Course Content	<p>Waste: Definition and categories</p> <p><b>SOLID WASTES</b></p> <ul style="list-style-type: none"> <li>• Qualitative analysis of solid waste</li> <li>• Physical characteristics</li> <li>• Chemical characteristics</li> <li>• Biological characteristics</li> <li>• The concept of management</li> <li>• European Waste Catalogue</li> <li>• EU institutional framework: priorities for sustainable resource and waste management.</li> </ul> <p>o Quantitative analysis of solid waste</p> <p>o Composition and quantities of production</p> <ul style="list-style-type: none"> <li>• Quantities describing waste generation</li> <li>• Possibilities of reducing the production of solid waste:</li> </ul> <p>o Possibilities of re-using solid waste</p> <p>o Recycling</p> <p>o Energy recovery - Methods of energy recovery of solid waste</p>			

	<ul style="list-style-type: none"> <li>• Methods of Waste Management</li> <li>• Green waste and its management (composting)</li> <li>• Toxic gardening waste</li> </ul> <p>LIQUID WASTE</p> <ul style="list-style-type: none"> <li>• Definition and categories</li> <li>• Qualitative and quantitative characteristics of liquid waste <ul style="list-style-type: none"> <li>○ Sewage networks</li> <li>○ Centralized and decentralized wastewater treatment systems</li> <li>○ Pre-treatment of waste water</li> <li>○ Primary treatment</li> <li>○ Secondary treatment - biological processes in suspension</li> <li>○ Natural waste water treatment systems. Disinfection - Sludge management</li> </ul> </li> <li>Tertiary treatment of liquid waste <ul style="list-style-type: none"> <li>○ Physical and chemical processes of wastewater treatment</li> <li>○ Reuse of sludge and recycled water in agriculture and green areas.</li> <li>○ Rules of Good Agricultural Practice for the Use of Recycled Water.</li> </ul> </li> <li>• Institutional framework for EU wastewater management</li> </ul>
Teaching Methodology	The content of this course will be taught through: PowerPoint presentations, the use of a board, guided discussions with the active participation of students, individual and team work on the part of students, and the use of a variety of visual and other teaching aids as required for the delivery of each unit.
Bibliography	<p><b>Greek Bibliography:</b></p> <ul style="list-style-type: none"> <li>• Κούγκολος Γ. Αθανάσιος (2007), Εισαγωγή στην περιβαλλοντική μηχανική, Τζιόλας, ISBN: 9789604180776.</li> <li>• Γκέκας, Βασίλειος Χ.(2002), Τεχνολογίες επεξεργασίας τοξικών και επικίνδυνων απόβλητων, Τζιόλα, ISBN 960-8050-69-3.</li> <li>• Κουϊμτζής, Θεμιστοκλής (2004), Έλεγχος ρύπανσης περιβάλλοντος, University StudioPress, ISBN 960-12-1350-3.</li> <li>• Μαλλιαρός, Χρήστος Θ.(2000), Περιβάλλον, ρύπανση, τεχνικές απορύπανσης : Αέρια, υγρά και στερεά απόβλητα Μεταίχμιο, ISBN 960-375-057-3.</li> <li>• Dietrich, Thomas (2003), Έλεγχος ρύπανσης και διαχείριση αποβλήτων, Ευρωπαϊκές Τεχνολογικές Εκδόσεις, Τόμος 2, ISBN 960-331-355-6.</li> </ul> <p><b>English Bibliography</b></p> <ul style="list-style-type: none"> <li>• Jacqueline Vaughn (2008), Waste Management: A Reference Handbook, ABC-CLIO, ISBN: 978-1598841503.</li> <li>• Eslamian, Saeid (2015), Urban Water Reuse Handbook, ISBN-13: 978-1482229141.</li> <li>• Pichtel, John (2014), Waste Management Practices: Municipal, Hazardous, and Industrial, ISBN: 978-1-4665-8519-5.</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Continuous Assessment: <ul style="list-style-type: none"> <li>- Participation: 10%</li> <li>- Written Assignments / Projects: 40%</li> </ul> </li> <li>• Final Written Exams: 50%</li> </ul>
Language	Greek

42.

Course Title	Nutrition and Diet				
Course Code	CBPA326				
Course Type	Theoretical				
Level	Diploma/Higher Diploma				
Year / Semester	Elective				
Teacher's Name	Hadjisymeou Panayiotis				
ECTS	4	Lectures / week	2	Laboratories / week	
Course Purpose and Objectives	The aim of the course is to introduce students to the basic principles of nutrition and dietetics and to the role of different foods in human health.				
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Understand the basic principles of human nutrition</li> <li>• Define the main nutrients</li> <li>• Comprehend food labels</li> <li>• They perceive the nutritional requirements of each age period in human life</li> <li>• Recognize how diet affects both health and disease</li> </ul>				
Prerequisites		Required			
Course Content	<ul style="list-style-type: none"> <li>• Introduction to Nutrition and Dietetics</li> <li>• Nutritional Options: Nutrient Ingredients and Nutrition</li> <li>• Carbohydrates: Simple sugars and complex carbohydrates</li> <li>• Lipids</li> <li>• Proteins and Amino Acids</li> <li>• Energy Balance, Weight Management and Metabolism</li> <li>• Vitamins: Healthy Facts about Health</li> <li>• Alcohol</li> <li>• Water and minerals</li> <li>• Life Cycle: Maternal and Infant Nutrition</li> <li>• From Childhood to Adulthood</li> <li>• Nutritional Guidelines: Healthy Diet Tools</li> </ul>				
Teaching Methodology	The content of this course will be taught through: PowerPoint presentations, the use of a board, guided discussions with the active participation of students, individual and team work on the part of students, and the use of a variety of visual and other teaching aids as required for the delivery of each unit.				
Bibliography	<p><b>Greek Bibliography:</b></p> <ul style="list-style-type: none"> <li>• <i>Townsend, CarolynE. (2001), Υγιεινή Διατροφή &amp; Διαιτητική, Έλλην, ISBN: 960-286-469-9.</i></li> <li>• <i>Χασαπίδου, Μαρία (2008), Διατροφή για υγεία, άσκηση και αθλητισμό, Universitystudiopress, ISBN: 978-960-12-1130-5.</i></li> <li>• <i>Αλεξανδρόπουλος, Θωμάς (2000), Θέματα υγιεινής τροφίμων &amp; διατροφής, Εκδόσεις Ίων, ISBN: 960-411-048-9.</i></li> </ul> <p><b>English Bibliography:</b></p> <ul style="list-style-type: none"> <li>• <i>Drummond, Karen Eich (2007), Nutrition for foodservice and culinary professionals, John Wiley &amp; Sons, ISBN: 0-471-59976-X.</i></li> <li>• <i>Fieldhouse, Paul (2002), Food and nutrition, Nelson Thornes, ISBN: 0-7487-3723-5.</i></li> </ul>				

Assessment	<ul style="list-style-type: none"><li>• Continuous Assessment:<ul style="list-style-type: none"><li>- Participation: 10%</li><li>- Written Assignments / Projects: 40%</li></ul></li><li>• Final Written Exams: 50%</li></ul>
Language	Greek

43.

Course Title	Food and Society			
Course Code	CBPA325			
Course Type	Theoretical			
Level	Diploma/Higher Diploma			
Year / Semester	Elective			
Teacher's Name	Hadjisymeou Panayiotis			
ECTS	4	Lectures / week	2	Laboratories / week
Course Purpose and Objectives	The aim of the course is to introduce students to the general concepts of nutrition and society. Students will study the influences that people receive in relation to eating. The course focuses on the cultural and global factors affecting the consumption of food and beverages and aims to introduce students to the anthropological, sociological, cultural and psychological factors affecting eating.			
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>• Understand the importance of eating and of nutritional adaptation in the development of social structure</li> <li>• Understand the evolution of different cultures in relation to nutrition</li> <li>• Identify the historical aspects of food preferences in different societies</li> <li>• Understand the relationship between social and psychological attitudes towards food preferences</li> <li>• Understand the modern ideas that shape national cultures in relation to nutrition</li> <li>• Understand the dynamics of global nutritional interactions</li> </ul>			
Prerequisites	None	Required	None	
Course Content	<p><b>Evolutionary and Historical Principles in Human Dietary Habits</b></p> <ul style="list-style-type: none"> <li>• Human Needs for Nutritional Ingredients</li> <li>• Nutrition and Human Evolution</li> <li>• Exploration of nutritional habits through paleontology, teeth, skulls and jaws</li> <li>• Brief description of the diet of the first humanoids</li> <li>• What can we say about the diet of prehistoric people?</li> <li>• Lactose intolerance</li> </ul> <p><b>Food and History: Nutritional Revolutions</b></p> <ul style="list-style-type: none"> <li>• The agricultural revolution in the Neolithic Age</li> <li>• Nutritional Consequences of the Agricultural / Rural Revolution: Comparison of nomads and farmers / producers.</li> <li>• Social and Political Consequences of the Agricultural-Rural Revolution</li> <li>• The search for spices</li> <li>• Food exchange between the New World (America) and the Old World (Europe, Africa, etc.)</li> <li>• Industrial Revolution – The increase in food production</li> <li>• Agricultural Changes in Europe during the 17th and 18th Centuries</li> <li>• Food and Industrial Revolution</li> <li>• The introduction of international cuisine</li> </ul>			

	<p><b>Socio-cultural aspects of modern food culture</b></p> <ul style="list-style-type: none"> <li>• The Scientific Revolution</li> <li>• Economic and Political Environment</li> <li>• Food Systems</li> <li>• Transport, Freezing, and Packaging</li> <li>• Food Falsification</li> <li>• Food Conservation</li> <li>• The discovery of vitamins</li> <li>• The complexity of modern food technology</li> <li>• Modern Adaptations</li> </ul> <p><b>Food culture and psychology</b></p> <ul style="list-style-type: none"> <li>• Dietary habits in a social, traditional and cultural environment</li> <li>• Culture is a mechanism of reaction to the environment</li> <li>• Teaching cultural elements</li> <li>• Culture as a guide to behavior</li> <li>• Culture is expressed through behavior and creations</li> <li>• Culture as a Functionally Embedded System</li> <li>• Variations within cultures</li> <li>• Ethnocentrism and Cultural Relativity</li> <li>• Implications / Consequences for Healthcare Professionals</li> </ul> <p><b>Food Symbolism</b></p> <ul style="list-style-type: none"> <li>• The state of the body and of human health</li> <li>• Food as a gift or as a reward</li> <li>• Food and social status</li> <li>• Food and gender</li> <li>• Food as a symbol of prestige</li> </ul>
Teaching Methodology	The content of this course will be taught through: PowerPoint presentations, the use of a board, guided discussions with the active participation of students, individual and team work on the part of students, and the use of a variety of visual and other teaching aids as required for the delivery of each unit.
Bibliography	<p><b>Greek Bibliography</b></p> <ul style="list-style-type: none"> <li>• Εμμανουηλίδου, Καλλιόπη (2011), <a href="#">Ψυχολογία της διατροφής</a>: Πώς οι διατροφικές συνήθειες αντανακλούν τον συναισθηματικό μας κόσμο, 1η έκδ., Αθήνα, <a href="#">Μεταίχμιο</a>, ISBN 978-960-501-459-9.</li> </ul> <p><b>English Bibliography</b></p> <ul style="list-style-type: none"> <li>• R. Shepherd, Monique Raats (2010), The Psychology of Food Choice (Frontiers in Nutritional Science, CABI Publishing, ISBN-10: 1845937236.</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Continuous Assessment: <ul style="list-style-type: none"> <li>- Participation: 10%</li> <li>- Written Assignments / Projects: 40%</li> </ul> </li> <li>• Final Written Exams: 50%</li> </ul>
Language	Greek

44.

Course Title	Introduction to Marketing			
Course Code	MRKT205			
Course Type	Lecture, discussions & Exercises			
Level	Higher Diploma			
Year / Semester	Elective			
Teacher's Name	Yerocostas Costas			
ECTS	4	Lectures / week	2	Laboratories / week
Course Purpose and Objectives	To introduce students to the science of Marketing Management and its applications in business and organisations.			
Learning Outcomes	<p>Upon successful completion of the course, the students will be in a position to:</p> <ul style="list-style-type: none"> <li>▪ To apply marketing theory and concepts to what marketers do in "the real world"</li> <li>▪ To use marketing concepts to make business decisions</li> <li>▪ To improve familiarity with current challenges and issues in marketing</li> </ul>			
Prerequisites	None	Required	None	
Course Content	<p>The course covers the following topics:</p> <ul style="list-style-type: none"> <li>▪ Introduction to Marketing</li> <li>▪ Overview of Marketing Management</li> <li>▪ Customer Satisfaction &amp; Strategic Planning</li> <li>▪ Market Research &amp; The Market Environment</li> <li>▪ Consumer Behaviour principles</li> <li>▪ Business Buying Behaviour</li> <li>▪ Competition, Segmentation, Targeting and Positioning</li> <li>▪ Products, Brands &amp; Services</li> <li>▪ Pricing, Marketing Channels</li> <li>▪ Advertising, Sales Promotion &amp; PR</li> <li>▪ Direct Marketing &amp; Online Marketing</li> </ul>			
Teaching Methodology	The class involves lectures, videos, guest speakers, small group exercises, case analyses and discussions. Student contributions are an important part of the course.			
Bibliography	<p>Main Course textbook</p> <ul style="list-style-type: none"> <li>▪ Kotler, Philip (2000), Marketing Management, 10/e, Prentice Hall</li> <li>▪ Kerin, Hartley &amp; Rudelius, Marketing (2012) 11/ed. McGraw-Hill</li> </ul>			
Assessment	<ul style="list-style-type: none"> <li>• Continuous Assessment <ul style="list-style-type: none"> <li>- Attendance: 10%</li> <li>- Two class tests: 40%</li> <li>- Two case analyses: 50%</li> </ul> </li> </ul>			
Language	Greek			