

## COURSE OUTLINE

### 1. GENERAL

<b>SCHOOL</b>	AGRICULTURAL SCIENCES		
<b>ACADEMIC UNIT</b>	AGRICULTURE		
<b>LEVEL OF STUDIES</b>	UNDERGRADUATE		
<b>COURSE CODE</b>	AGRI_406	<b>SEMESTER OF STUDIES</b>	FOURTH
<b>COURSE TITLE</b>	GENERAL HORTICULTURE		
<b>FACULTY MEMBER</b>			
<b>INDEPENDENT TEACHING ACTIVITIES</b> <i>if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits</i>		<b>WEEKLY TEACHING HOURS</b>	<b>CREDITS</b>
Lectures		2	
Lab exercises		2	
Total		4	5
<b>COURSE TYPE</b> <i>general background, special background, specialised general knowledge, skills development</i>	Specialized general knowledge		
<b>PREREQUISITE COURSES:</b>	Typically, there are no prerequisite courses		
<b>LANGUAGE OF INSTRUCTION and EXAMINATIONS:</b>	Greek. Teaching may be performed in English in case foreign students attend the course.		
<b>IS THE COURSE OFFERED TO ERASMUS STUDENTS</b>	Yes (English)		
<b>COURSE WEBPAGE (URL)</b>			

### 2. LEARNING OUTCOMES

#### **Learning outcomes**

- Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area
- Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B
- Guidelines for writing Learning Outcomes

The course aims to familiarize students with entrepreneurial cultivation of vegetables in open field and under covered conditions. Information provided is focused on origin, evolution, taxonomy of commercial vegetables, propagation, use of supportive front line technology and vegetable expansion of their postharvest life.

By the end of this course the student will have developed the following skills:

Using frontline know-how on vegetable production in order to achieve high quality and market competitiveness.

Be able to consult farmers and agricultural firms for vegetable propagation techniques.

Be able to apply proper agricultural practices which can lead to successful certification, packaging and distribution to the market.

### General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

<i>Search for, analysis and synthesis of data and information, with the use of the necessary technology</i>	<i>Project planning and management</i>
<i>Adapting to new situations</i>	<i>Respect for difference and multiculturalism</i>
<i>Decision-making</i>	<i>Respect for the natural environment</i>
<i>Working independently</i>	<i>Showing social, professional and ethical responsibility and sensitivity to gender issues</i>
<i>Team work</i>	<i>Criticism and self-criticism</i>
<i>Working in an international environment</i>	<i>Production of free, creative and inductive thinking</i>
<i>Working in an interdisciplinary environment</i>	.....
<i>Production of new research ideas</i>	<i>Others...</i>
	.....

- Information/data search using technology tools
- Decision making
- Autonomous (Independent) work
- Team work
- Project planning and management
- Respect for the environment
- Adaptation to environmental changes under optimum, suboptimum and extreme conditions.
- Production of new research ideas
- Promotion of free, creative and inductive thinking

### 3. SYLLABUS

#### Lectures

1. Evolution of vegetable market in Greece and their nutritional value.
2. Botanic taxonomy of vegetables; types of gardening.
3. Climate requirements of vegetables.
4. Soil requirements and soil amelioration
5. Propagation techniques of vegetables. Grafting.
6. Plant hardening and transplantation to the field.
7. Techniques of direct planting in soil and growth development.
8. Growth physiology and flower pollination / fertilization.
9. Rotation techniques.
10. Fertilization and irrigation of vegetables.
11. Pest, diseases and weed control.
12. Vegetable seed production.
13. Harvest, postharvest processes and fresh vegetable distribution on the market.

#### Laboratory exercises

1. Seed identification of vegetables.
2. Seed germination; abiotic requirements.
3. Propagation techniques
4. Hardening and seedling types.
5. Transplanting and direct sowing.
6. Postharvest process in fresh vegetables.

#### 4. TEACHING AND LEARNING METHODS - EVALUATION

<p><b>DELIVERY</b> <i>Face-to-face, Distance learning, etc.</i></p>	<p>Lectures, self-tests of students and problem-solving seminars., face to face.</p>	
<p><b>USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES</b> <i>Use of ICT in teaching, laboratory education, communication with students</i></p>	<p>Use of Information and Communication Technologies (ICTs) in teaching. Scenarios <i>in silico</i> and evaluation of general horticulture data will be integrated in the course. Exemplary solutions will be provided.</p>	
<p><b>TEACHING METHODS</b> <i>The manner and methods of teaching are described in detail.</i></p> <p><i>Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.</i></p> <p><i>The student's study hours for each learning activity are given as well as the hours of nondirected study according to the principles of the ECTS</i></p>	<p><b>Activity</b></p>	<p><b>Semester workload</b></p>
	<p>Lectures (2 conduct hours per week x 13 weeks)</p>	<p>26</p>
	<p>Lab Practice (2 conduct hour per week x 6 weeks)</p>	<p>12</p>
	<p>Individual and group lab reports</p>	<p>18</p>
	<p>Hours for private study of the student, preparation and attendance mid-term or/and final examinations.</p>	<p>69</p>
<p><b>Total number of hours for the Course (25 hours of work-load per ECTS credit)</b></p>	<p><b>125 hours (total student work-load)</b></p>	
<p><b>STUDENT PERFORMANCE EVALUATION</b> <i>Description of the evaluation procedure</i></p> <p><i>Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other</i></p> <p><i>Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</i></p>	<p>Student performance evaluation will be explained to the students at the beginning of the course/beginning of the semester.</p> <ol style="list-style-type: none"> <li>1. Mandatory final written examination for lectures / theoretical part of the course, comprises 60% of the final mark of the student.</li> <li>2. Mandatory final written examination for the transferred laboratory skills of the course, comprises 40% of the final mark of the student.</li> </ol> <p>Minimum pass mark: 5 (full scale: 0-10)</p> <ol style="list-style-type: none"> <li>1. The above mentioned process will be taking place in Greek and for foreign students (eg ERASMUS students) in English. Examination will be based on full length questions and / or multiple choice questions.</li> <li>2. Oral examination could take place if permitted by the legal/regulatory framework under which the student is affiliated (or enrolled) to the department. If permitted, oral</li> </ol>	

	examination will take place simultaneously with written exams.
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## 5. ATTACHED BIBLIOGRAPHY

*Proposed literature* (indicative and not restrictive):

1. Σάββας, Δ., 2016. Γενική Λαχανοκομία. Εκδόσεις Πεδίο
2. Χα, Ι.Α., Πετρόπουλος, Σ., 2014. Γενική Λαχανοκομία και Υπαιθρια Καλλιέργεια Κηπευτικών. Πανεπιστημιακές Εκδόσεις Θεσσαλίας, Βόλος.

*Proposed research journals for further reading* (indicative and not restrictive):

1. HortScience
2. Journal of Horticultural Science and Biotechnology
3. European Journal of Horticultural Science.