

## COURSE MODULE OUTLINE

### General information

<b>SCHOOL</b>	School of Science and Technology		
<b>PROGRAM COURSE</b>	Interdisciplinary PSP cultivations under cover-Hydroponics (KYK)		
<b>LEVEL OF STUDY</b>	Postgraduate program-Master of Science (MSc)		
<b>COURSE UNIT CODE</b>	<b>KYK52</b>		First semester
<b>COURSE TITLE</b>	Integrated and Organic Cultivation of vegetables under cover		
<b>INDEPENDENT TEACHING ACTIVITIES</b>		<b>WEEKLY TEACHNG HOURS</b>	<b>CREDITS</b>
<i>in case credits are awarded for separate components/parts of the course, e.g. in lectures, laboratory exercises, etc. If credits are awarded for the entire course, give the weekly teaching hours and the total credits</i>			
Weekly workload hours: 21-22 hours x 13 weeks		280	10 ECTS
<i>Add rows if necessary. The organization of teaching and the teaching methods used are described in detail under section 4</i>			
<b>COURSE TYPE</b> Compulsory, Optional, Optional mandatory	Compulsory		
<b>PREREQUISITE COURSES:</b>	No		
<b>LANGUAGE OF INSTRUCTION AND EXAMS:</b>	The language of instruction of the programme is Greek		
<b>THE COURSE IS OFFERED TO ERASMUS STUDENTS</b>	No		
<b>COURSE WEBSITE (URL)</b>	<a href="https://www.eap.gr/en/crops-under-cover-hydroponics/topics/#k52">https://www.eap.gr/en/crops-under-cover-hydroponics/topics/#k52</a>  Each module has its own space in the Learning Management System of EAP ( <a href="https://courses.eap.gr/login/index.php">https://courses.eap.gr/login/index.php</a> ), with controlled access (use of code) for students and teaching staff.		

## (2) LEARNING OUTCOMES

### **Learning Outcomes**

The course learning outcomes, specific knowledge, skills and competences of an appropriate (certain) level, which students will acquire upon successful completion of the course, are described in detail. It is necessary to consult:

#### **APPENDIX A**

- Description of the level of learning outcomes for each level of study, in accordance with the European Higher Education Qualifications' Framework.
- Descriptive indicators for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and

#### **APPENDIX B**

- Guidelines for writing Learning Outcomes

Upon completion and successful examination of the course the postgraduate student will know:

- What are the important horticultural crops,
- What are the important vegetable crops that are important and what is their nutritional value,
- What are the main vegetable crops, what are their nutritional value, what are their main nutritional value, what is the current situation in the Greek cabbage industry (in terms of area, productivity, imports & exports, economics of cultivation),
- what are the modern technologies for the establishment and production of vegetables (nurseries, morning gardening techniques, greenhouses, hydroponics) according to the principles of integrated production management and according to the principles and protocols of organic farming,
- the post-harvest handling of the vegetables, including their placing on the market.

Based on the above background knowledge, the postgraduate student who has successfully completed the unit will be able to prepare a technical study for vegetable cultivation, to grow a vegetable as a producer, to provide advice to producers on vegetable cultivation, to work in organic vegetable certification bodies and horticultural integrated production management organisations and to work in research projects related to vegetables.

### **General Competences**

Taking into consideration the general competences that students/graduates must acquire (as those are described in the Diploma Supplement and are mentioned below), at which of the following does the course attendance aim?

Search for, analysis and synthesis of data and information by the use of appropriate technologies,	Project planning and management
Adapting to new situations	Respect for diversity and multiculturalism
Decision-making	Environmental awareness
Individual/Independent work	Social, professional and ethical responsibility and sensitivity to gender issues
Group/Team work	Critical thinking
Working in an international environment	Development of free, creative and inductive thinking
Working in an interdisciplinary environment (Other.....citizenship, spiritual freedom, social	.....
Introduction of innovative research	awareness, altruism etc.) .....

- Search for, analysis and synthesis of data and information by the use of appropriate technologies
- Adapting to new situations
- Decision-making
- Individual/Independent work
- Introduction of innovative research
- Environmental awareness

### (3) COURSE CONTENT

- Classification and summary presentation of vegetables
- Classification and classification of horticultural crops under cover, classification and classification of horticultural crops
- Vegetable propagation – Propagating material, Nurseries, asexual propagation
- Growing vegetables under low cover
- Growing vegetables in greenhouses
- Growing of vegetables in glasshouses
- Integrated management of irrigation and fertilisation of vegetables under cover
- Modern integrated production management techniques for horticultural crops under cover
- Organic horticulture under cover
- Harvesting – post-harvest handling in horticultural crops under cover.

### (4) TEACHING METHODS--ASSESSMENT

<p style="text-align: center;"><b>MODES OF DELIVERY</b></p> <p style="text-align: center;"><i>Face-to-face, in-class lecturing, distance teaching and distance learning etc.</i></p>	Distance learning using the HOU's E-Learning Platform and conducting Group Consultative Meetings (tele-GCM).	
<p style="text-align: center;"><b>USE OF INFORMATION AND COMMUNICATION TECHNOLOGY</b></p> <p style="text-align: center;"><i>Use of ICT in teaching, Laboratory Education, Communication with students</i></p>	<p>Use of ICT in teaching, Communication with students. More specifically, we use:</p> <ul style="list-style-type: none"> <li>• Remote meetings tools (webex),</li> <li>• Presentation software (e.g. power point),</li> <li>• Specialized software in the subjects under study.</li> <li>• Additionally, the students use office automation tools, web browsers and e-reader for digital books.</li> </ul>	
<p style="text-align: center;"><b>COURSE DESIGN</b></p> <p style="text-align: center;"><i>Description of teaching techniques, practices and methods: Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, Internship, Art Workshop, Interactive teaching, Educational visits, projects, Essay writing, Artistic creativity, etc.</i></p> <p style="text-align: center;"><i>The study hours for each learning activity as well as the hours of selfdirected study are given following the principles of the ECTS.</i></p>	<p style="text-align: center;"><b>Activity/Method</b></p>	<p style="text-align: center;"><b>Semester workload</b></p>
	3 meetings (4hrs)	12 hrs
	2 educational activities	30 hrs
	1 written assignment (semester essay)	60 hrs
	Final examinations	3 hrs
	Individual study	168-181 hrs
	<b>Total course work load</b>	<b>273-286 hrs</b>

<p style="text-align: center;"><b>STUDENT PERFORMANCE EVALUATION/ASSESSMENT METHODS</b></p> <p><i>Detailed description of the evaluation procedures:</i></p> <p><i>Language of evaluation, assessment methods, formative or summative (conclusive), multiple choice tests, short- answer questions, open-ended questions, problem solving, written work, essay/report, oral exam, presentation, laboratory work, other.....etc.</i></p> <p><i>Specifically defined evaluation criteria are stated, as well as if and where they are accessible by the students.</i></p>	<p>a1. Two (2) Short Written Essays, with weighting factor to the class unit's final grade 10% each.</p> <p>a2. One (1) Semester Essay with weighting factor to the class unit's final grade 20%.</p> <p>a3 The right to participate in the final exams is secured if there is at least 50% of the sum of what is potentially excellent from all the essays collected and graded, that is 20 units overall out of 100, according to the weighting factors referred to in points a1 and a2.</p> <p>a4. The grade of the written assignments (short and semester) is activated only with a grade equal to, or above the base (<math>\geq 5</math>) in the final or repeated exams.</p> <p>All criteria are posted in each module's webpage, as well as in the programme's general page.</p> <p>The final examination includes a multiple choice sheet, as well as oral examination and accounts for 60% of the total grade.</p> <p>There are all the criteria posted, both in each written assignment (in the study) and in the general regulation: <a href="https://www.eap.gr/wp-content/uploads/2022/03/kanonismos-spoudwn-isxys-apo-to-didaktiko-etos-2022-2023.pdf">https://www.eap.gr/wp-content/uploads/2022/03/kanonismos-spoudwn-isxys-apo-to-didaktiko-etos-2022-2023.pdf</a></p>
---	---

## (5) SUGGESTED BIBLIOGRAPHY:

<p><b>-Suggested bibliography</b></p> <p>D. Savvas (2016). General Vegetable Farming. Pedio Publications, Athens 2016. (in Greek).</p> <p><b>Optional:</b></p> <p>Savvas, D. (2021). Biological nitrogen fixation and legumes. Retrieved 19 February 2021 from <a href="https://www.aua.gr/ekk/homepage-gr-2/ekpaideusi-gr/metaptyxiaki">https://www.aua.gr/ekk/homepage-gr-2/ekpaideusi-gr/metaptyxiaki</a> (in Greek).</p> <p><b>Websites:</b></p> <ul style="list-style-type: none"> <li>• <a href="https://www.globalgap.org/uk_en">https://www.globalgap.org/uk_en</a></li> <li>• <a href="https://www.globalgap.org/uk_en/documents/?fq=gg.standard.gg:(%22ifa5%22)&amp;fq=gg.subscope:(%22fruit%22)&amp;fq=con_locales:(%22en%22)&amp;fq=gg.document.type:(%22checklist%22+OR+%22regulations%22+OR+%22cpacc%22)#fq=gg.subscope:(%22fruit%22)&amp;fq=gg.document.type:(%22checklist%22+OR+%22regulations%22+OR+%22cpacc%22)&amp;fq=con_locales:(%22el%22)">https://www.globalgap.org/uk_en/documents/?fq=gg.standard.gg:(%22ifa5%22)&amp;fq=gg.subscope:(%22fruit%22)&amp;fq=con_locales:(%22en%22)&amp;fq=gg.document.type:(%22checklist%22+OR+%22regulations%22+OR+%22cpacc%22)#fq=gg.subscope:(%22fruit%22)&amp;fq=gg.document.type:(%22checklist%22+OR+%22regulations%22+OR+%22cpacc%22)&amp;fq=con_locales:(%22el%22)</a></li> <li>• <a href="https://www.elgo.gr/index.php?option=com_content&amp;view=article&amp;id=760:total-system-management-agricultural-production&amp;catid=232&amp;Itemid=1421">https://www.elgo.gr/index.php?option=com_content&amp;view=article&amp;id=760:total-system-management-agricultural-production&amp;catid=232&amp;Itemid=1421</a></li> </ul>
--