

OPEN FIELD VEGETABLE PRODUCTION

1. GENERAL

SCHOOL	AGRICULTURAL SCIENCES		
ACADEMIC UNIT	CROP SCIENCE		
LEVEL OF STUDIES	UNDERGRADUATE		
COURSE CODE	CRS_706	SEMESTER OF STUDIES	7 th
COURSE TITLE	Open Field Vegetable Production		
INDEPENDENT TEACHING ACTIVITIES <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>		WEEKLY TEACHING HOURS	CREDITS
	Lectures	2	
	Seminars	1	
	Laboratory exercises	2	
	Total	5	5
COURSE TYPE <i>general background, special background, specialised general knowledge, skills development</i>	Specialized general knowledge, <i>skills development</i>		
PREREQUISITE COURSES:	Typically, there are no prerequisite courses		
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek. Teaching may be performed in English in case foreign students attend the course.		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes (English)		
COURSE WEBPAGE (URL)			

2. LEARNING OUTCOMES

<p>Learning outcomes</p> <ul style="list-style-type: none"> • 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
<p>The course aims to familiarize students with entrepreneurial cultivation of vegetables in open field. 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:</p> <p>Using frontline know-how on vegetable production in order to achieve high quality and market competitiveness.</p> <p>Be able to consult farmers and agricultural firms for vegetable propagation techniques.</p> <p>Be able to apply proper agricultural practices which can lead to successful certification, packaging and distribution to the market.</p>
<p>General Competences</p> <p><i>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></p> <p>Search for, analysis and synthesis of data and Project planning and management</p>

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

<p>Lectures</p> <ol style="list-style-type: none"> 1. Tomato cultivation techniques. 2. Potato cultivation techniques. 3. Cultivation techniques of Cucurbitaceae family vegetables (melon, cucumber). 4. Cultivation techniques of Cucurbitaceae family vegetables (watermelon, zucchini). 5. Cultivation techniques of leaf vegetables (lettuce, radish, endive). 6. Cultivation techniques of Brassicaceae family vegetables (broccoli, cabbage, cauliflower). 7. Cultivation techniques bulb vegetables (onion, leek, garlic) 8. Cultivation techniques of Fabaceae family vegetables (bean, peas) 9. Asparagus cultivation techniques. 10. Artichokes cultivation techniques. 11. Cultivation techniques of Apiaceae family vegetables (carrot, celery, parsley) 12. Cultivation techniques of Chenopodium family vegetables (beetroot, spinach) 13. Okra cultivation techniques. <p>Laboratory exercises</p> <ol style="list-style-type: none"> 1. Potato propagation 2. Propagation, pruning and tomato trallis system 3. Propagation, pruning and grafting system of watermelon and cucumber. 4. Lettuce Propagation 5. Propagation of bulb vegetables 6. Transplanting and direct sowing. 7. Asparagus and artichokes propagation.

4. TEACHING AND LEARNING METHODS - EVALUATION

DELIVERY <i>Face-to-face, Distance learning, etc.</i>	Lectures, self-tests of students and problem-solving seminars., face to face.
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	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.

<p>Use of ICT in teaching, laboratory education, communication with students</p>	<p>Exemplary solutions will be provided.</p>													
<p>TEACHING METHODS <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>	<table border="1"> <thead> <tr> <th data-bbox="684 338 1082 371">Activity</th> <th data-bbox="1098 338 1401 371">Semester workload</th> </tr> </thead> <tbody> <tr> <td data-bbox="684 378 1082 477">Lectures and seminars (3conduct hours per week x 13 weeks)</td> <td data-bbox="1098 378 1401 477">39</td> </tr> <tr> <td data-bbox="684 483 1082 544">Lab Practice (2 conduct hour per week x 6 weeks)</td> <td data-bbox="1098 483 1401 544">12</td> </tr> <tr> <td data-bbox="684 551 1082 611">Individual and group lab reports</td> <td data-bbox="1098 551 1401 611">6</td> </tr> <tr> <td data-bbox="684 618 1082 759">Hours for private study of the student, preparation and attendance mid-term or/and final examinations.</td> <td data-bbox="1098 618 1401 759">68</td> </tr> <tr> <td data-bbox="684 766 1082 893">Total number of hours for the Course (25 hours of work-load per ECTS credit)</td> <td data-bbox="1098 766 1401 893">125 hours (total student work-load)</td> </tr> </tbody> </table>	Activity	Semester workload	Lectures and seminars (3conduct hours per week x 13 weeks)	39	Lab Practice (2 conduct hour per week x 6 weeks)	12	Individual and group lab reports	6	Hours for private study of the student, preparation and attendance mid-term or/and final examinations.	68	Total number of hours for the Course (25 hours of work-load per ECTS credit)	125 hours (total student work-load)	
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<p>STUDENT PERFORMANCE EVALUATION <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>Optionally, two mid-term examinations, the first in the middle and the second at the end of the semester. The evaluation procedure is conducted with short answer questions and/or open-ended questions and/or multiple choice questionnaires and/or oral examination, as well as questions based on laboratory exercises. The final examination grade is the mean mark. It is mandatory to obtain pass grade (≥ 5) in each examination.</p> <p>Written examination after the end of the semester. The evaluation procedure is conducted with short answer questions and/or open-ended questions and/or multiple choice questionnaires and/or oral examination, as well as questions based on laboratory exercises (unless the student has successfully participated the mid-term examinations). Minimum passing grade: 5.</p> <p>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.</p> <p>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 examination will take place simultaneously with written exams.</p>													

5. ATTACHED BIBLIOGRAPHY

<p><i>Proposed literature (indicative and not restrictive):</i></p> <ol style="list-style-type: none"> <li data-bbox="244 1704 1278 1765">1. Χα, Ι.Α., Πετρόπουλος, Σ., 2014. Γενική Λαχανοκομία και Υπαίθρια Καλλιέργεια Κηπευτικών. Πανεπιστημιακές Εκδόσεις Θεσσαλίας, Βόλος. <li data-bbox="244 1771 1382 1832">2. Ολύμπιος, Χ., 2015. Η Τεχνική της καλλιέργειας των Υπαίθριων Κηπευτικών. Εκδόσεις Σταμούλης, σελ. 888. <p><i>Proposed research journals for further reading (indicative and not restrictive):</i></p> <ol style="list-style-type: none"> <li data-bbox="244 1901 424 1930">1. HortScience

2. Journal of Horticultural Science and Biotechnology.