COURSE OUTLINE

1. GENERAL

SCHOOL	AGRICULTURAL SCIENCES		
ACADEMIC UNIT	AGRICULTURE		
LEVEL OF STUDIES	UNDERGRADUATE		
COURSE CODE	AGR_502	**SEMESTER**	5th
COURSE TITLE	General Pomology		

INDEPENDENT TEACHING ACTIVITIES *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*	**WEEKLY TEACHING HOURS**	**CREDITS**
Lectures	3	
Laboratory exercises	2	
Total	5	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	SPECIAL BACKGROUND SPECIALISED GENERAL KNOWLEDGE
PREREQUISITE COURSES:	Typically, there are not prerequisite course.
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek.
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No
COURSE WEBSITE (URL)	

2. LEARNING OUTCOMES

Learning outcomes

The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.

Consult Appendix A

- *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 aim of the course is to introduce the students to the basic knowledge about the fruit tree botany and physiology and the cultivation practices applied in an orchard.

By the end of this course, the student will be able to:

1. Know the basic organs and functions of the tree.
2. Understand the interaction between the tree and its environment.
3. Know the most important tree cultivation practices.
4. Recognize and evaluate the effect of abiotic or abiotic factors on the crop.
5. Know about the postharvest handling of fruits.

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?

Search for, analysis and synthesis of data and information, with the use of the necessary technology
Adapting to new situations
Decision-making
Project planning and management
Respect for difference and multiculturalism
Respect for the natural environment
Showing social, professional and ethical responsibility and sensitivity

Working independently *Team work* *Working in an international environment* *Working in an interdisciplinary environment* *Production of new research ideas*	*to gender issues* *Criticism and self-criticism* *Production of free, creative and inductive thinking* *……* *Others…* *…….*

By the end of this course the student will, furthermore, have developed the following skills (general abilities):

1. Ability to use this knowledge in other subjects of agronomy.
2. Ability to search, evaluate and use relevant knowledge from different bibliography sources.
3. Skills to interact with his/her co-students, professor and possible stakeholders in fruit tree cultivation matters.
4. Skills for the management of a commercial orchard.

Generally, by the end of this course the student will, furthermore, have developed the following general abilities (from the list above):

1. Search for, analysis and synthesis of data and information, with the use of the necessary technology
2. Decision-making
3. Respect for the natural environment
4. Production of free, creative and inductive thinking

3. SYLLABUS

1. Introduction to Pomology.
2. Tree botany. Morphology of the tree organs.
3. Climatic and soil conditions. Environment and fruit tree production.
4. Productive life of fruit trees.
5. Bud dormancy in fruit trees.
6. Flower bud induction and differentiation. Flowering, pollination, fertilization and fruiting.
7. Fruit ripening, postharvest management of the fruits.
8. Cultivation techniques: water requirements – irrigation.
9. Cultivation techniques: mineral nutrition.
10. Cultivation techniques: pruning.
11. Propagation techniques of fruit trees.
12. Grafting of fruit trees.
13. Characteristics of the various fruit tree rootstocks.

Laboratory exercises:

- Criteria of classification and characterisation of the most important fruit trees for Greece.
- Establishment and planting systems of a commercial orchard.
- Fruit tree vegetation.
- Stages of flower development and fruit set.
- Pruning techniques.
- Propagation and grafting techniques of fruit trees.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face-to-face lectures and laboratory exercises.
USE OF INFORMATION AND COMMUNICATIONS	• Use of Information and Communication Technologies (ICTs) (e.g. powerpoint) in teaching.

<table>
<tr><td>TECHNOLOGY
Use of ICT in teaching, laboratory education, communication with students</td><td>• Use of ICTs in student communication (learning support through the e-class platform).</td></tr>
<tr><td>TEACHING METHODS
The manner and methods of teaching are described in detail.
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.

The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS</td><td>
<table>
<tr><th>Activity</th><th>Semester workload</th></tr>
<tr><td>Lectures (3 conduct hours per week x 13 weeks)</td><td>39</td></tr>
<tr><td>Field and laboratory exercises (2 conduct hours per week x 6 weeks)</td><td>12</td></tr>
<tr><td>Hours for private study of the student and preparation for mid-term or/and final examination – Participation in the examinations</td><td>74</td></tr>
<tr><td>Course total</td><td>125 hours</td></tr>
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<tr><td>STUDENT PERFORMANCE EVALUATION
Description of the evaluation procedure
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
Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</td><td>1. 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.
2. 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.
3. All the above are taking place in Greek.</td></tr>
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5. ATTACHED BIBLIOGRAPHY

- *Suggested bibliography:*

1. Pontikis, 1997, General Pomology, STAMOULIS Editions.
2. Vasilakakis, 2016, General and Applied Pomology, AGIS-SAVVAS GARTAGANIS Editions.
3. Magganaris, 2010, General Pomology, TEI of Thessaloniki Editions.

- *Related academic journals:*

1. Acta Horticulturae
2. HortScience
3. Scientia Horticulturae
4. Journal of Plant Growth Regulation
5. Tree Physiology
6. Fruits
7. European Journal of Horticultural Science
8. HortTechnology