COURSE OUTLINE

1. GENERAL

SCHOOL	AGRICULTURAL SCIENCES		
ACADEMIC UNIT	AGRICULTURE		
LEVEL OF STUDIES	UNDERGRADUATE		
COURSE CODE	AGR_1006	**SEMESTER**	10th
COURSE TITLE	Deciduous Fruit Trees		

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*	SPECIALISED GENERAL KNOWLEDGE SKILLS DEVELOPMENT
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 cultivation of economically important fruit species.

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

1. Know the basic physiological procedures of deciduous fruit trees.
2. Know the basic tools and techniques for the sustainable cultivation of deciduous fruit trees.
3. Recognize and evaluate the effect of abiotic or abiotic factors on the crop.

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
Working independently
Team work
Working in an international environment
Working in an interdisciplinary environment
Production of new research ideas
Project planning and management
Respect for difference and multiculturalism
Respect for the natural environment
Showing social, professional and ethical responsibility and sensitivity 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. Skills for the management of a deciduous fruit tree cultivation.
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 deciduous fruit tree cultivation matters.

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. Working independently
4. Teamwork
5. Respect for the natural environment
6. Production of free, creative and inductive thinking

3. SYLLABUS

1st – 2nd week: Peach, Cherry, Sour Cherry Trees

3rd – 4th week: Almond, Apricot, Plum Trees

5th – 6th week: Apple, Pear, Quince Trees

7th – 9th week: Pistachio, Chestnut, Walnut, Hazel, Pecan Trees

10th -13th week: Fig, Kiwi, Pomegranate, Loquat, Carob, Lotus Trees

For each of the species the following will be studied:

- Origin, geographical distribution and current situation in Greece and world-wide, current trends and prospects.
- Morphology and taxonomy, climatic and soil conditions.
- Classification and characterization of varieties and rootstocks.
- Flower bud induction and differentiation. Flowering, pollination, fertilization and fruiting.
- Propagation techniques.
- Planting systems, selection of the most appropriate varieties and rootstocks and canopy training.
- Cultivation techniques: mineral nutrition, water requirements - irrigation, pruning, weed management and soil cultivation.
- Fruit thinning, fruit development and composition, fruit ripening.
- Fruit harvesting, rules for the production of high quality products, postharvest management and storage of fruits.

Laboratory exercises:

- Classification of the different species and characterization of varieties and rootstocks.
- Cultivation practices for the deciduous fruit tree species.
- Propagation and grafting techniques.
- Pruning during the training period and pruning of mature trees.
- Establishment of commercial orchard, planting systems and canopy training.
- Fruit thinning – Fruit development and ripening.

4. TEACHING and LEARNING METHODS - EVALUATION

<table>
<tr><td>DELIVERY
Face-to-face, Distance learning, etc.</td><td>Face-to-face lectures and laboratory exercises.</td></tr>
<tr><td>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY
Use of ICT in teaching, laboratory education, communication with students</td><td>• Use of Information and Communication Technologies (ICTs) (e.g. powerpoint) in teaching.
• 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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</td></tr>
<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>
</table>

5. ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

1. Vasilakakis, 2016, General and Specific Pomology, Gartaganis Publ.
2. Therios and Dimasi-Theriou, 2012, Specific Pomology, Gartaganis Publ.
3. Pontikis, 1996, Specific Pomology, vol. 2, Stamoulis Publ.
4. Pontikis, 2003, Specific Pomology, vol. 1, Stamoulis Publ.