

COURSE OUTLINE

1. GENERAL INFORMATION

FACULTY/SCHOOL	SCHOOL OF PLANT SCIENCES		
DEPARTMENT	DEPARTMENT OF CROP SCIENCE		
LEVEL OF STUDY	Undergraduate		
COURSE UNIT CODE	2345	Semester:	4 th
COURSE TITLE	ADVANCED VITICULTURE		
INDEPENDENT TEACHING ACTIVITIES <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 TEACHING HOURS	ECTS	
Lectures	3	5	
Laboratory Exercises	2		
<i>Add rows if necessary. The organization of teaching and the teaching methods used are described in detail under section 4.</i>			
COURSE TYPE <i>Background knowledge, Scientific expertise, General Knowledge, Skills Development</i>	Scientific expertise, Skills Development		
PREREQUISITE COURSES:			
LANGUAGE OF INSTRUCTION and EXAMS:	Greek		
THE COURSE IS OFFERED TO ERASMUS STUDENTS	YES		
COURSE WEBSITE (URL)	https://oeclclass.aua.gr/eclclass/courses/567/		
TEACHERS (Theory lectures & Laboratory exercises)	<p>Theory Lectures</p> <ul style="list-style-type: none"> • Biniari Katerina, Associate Professor Academic field: Viticulture-Ampelography • Stavrakaki Maritina, Assistant Professor Academic field: Viticulture-Ampelography <p>Laboratory Exercises</p> <ul style="list-style-type: none"> • Biniari Katerina, Associate Professor Academic field: Viticulture-Ampelography • Stavrakaki Maritina, Assistant Professor Academic field: Viticulture-Ampelography • Bouza Despoina, Teaching assistant Academic field: Viticulture-Ampelography 		

2. LEARNING OUTCOMES

<p>Learning Outcomes</p> <p><i>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.</i></p> <p>Appendix A</p> <ul style="list-style-type: none"> • <i>Description of the level of learning outcomes for each level of study, in accordance with the European Higher Education Qualifications' Framework</i>

- Descriptive indicators for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning

And Appendix B

- Guidelines for writing Learning Outcomes

The objective of the course is to introduce students in the reproduction, propagation and cultivation (viticultural) techniques of the grapevine, as well as in ampelography.

The course aims to introduce students in the methodology used both in the propagation, in the viticultural techniques as well as in the identification of grapevine varieties, rootstocks and their cultivation suitability, for the proper management of a modern productive vineyard.

The course is offered to the students of:

- 6th semester of the Department of Crop Science (compulsory)
- 4th semester of the Department of Food Science and Human Nutrition (optional)

Upon the successful completion of the course (theory and laboratory part of the course), students will have (Descriptive indicators for Levels 6 of the European Qualifications Framework for Lifelong Learning):

- Understood the differentiation and fertility of grapevine buds
- Understood the pollination, fruit setting, development and maturation of the berries
- Understood the asexual propagation with cuttings and graft
- Understood the effect of canopy management (summer pruning) in the viticultural practice
- Understood the properties and selection criteria of rootstocks, the properties, quality characters and cultivation suitability of grape cultivars.

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 using appropriate technologies,
Adapting to new situations
Decision-making
Individual/Independent work
Group/Teamwork
Working in an international environment
Working in an interdisciplinary environment
Introduction of innovative research*

*Project planning and management
Respect for diversity and multiculturalism
Environmental awareness
Social, professional and ethical responsibility and sensitivity to gender issues
Critical thinking
Development of free, creative and inductive thinking
(Other..... citizenship, spiritual freedom, social awareness, altruism etc.)*

Individual/independent and team/group work

- Decision-making
- Working in an international
- Project planning and management
- Environmental awareness
- Development of free, creative and inductive thinking

1. COURSE CONTENT

i. Grapevine reproduction

Introduction – Differentiation of latent buds – Time of differentiation – Grapevine bud fertility – Factors that affect the differentiation of latent buds – Dormancy of grapevine latent buds – Flowering – Pollination – Fruit set – Growth and maturation of the berries – Growth stages and maturation of the berries – Factors that affect the growth and maturation of the berries.

ii. Grapevine propagation

Introduction-Asexual propagation – Propagation with cuttings – Rhizogenesis in grapevine cuttings – Factors that affect the creation of random roots – Propagation with grafting – Callogenesis – Procedure and mechanism of grafting – Factors that affect the success of the grafting – Interactions between scion and rootstock – Methods and techniques of grafting – Tissue culture – Production of propagation material of grapevine – Grapevine nurseries – Grapevine sexual propagation

iii. Viticultural techniques

Introduction – Summer pruning (shoot thinning – shoot trimming – leaf removal – cluster thinning - use of Phyto-regulatory substances)

iv. Ampelography

Introduction – Methodology and Code of Ampelographic description – Ampelographic characters – Taxonomy of the Vitaceae family – Grapevine rootstocks (properties and selection criteria of rootstocks – The most significant rootstocks of the Greek vineyard – Grapevine varieties of the Greek vineyard (quality characters and aptitudes of wine grape cultivated varieties – table grape varieties and varieties of special use – The most important Greek and foreign varieties of the Greek vineyard (Origin – ampelographic characters and phenological stages – Aptitudes and cultivation suitability – Clonal selection

2. TEACHING and LEARNING METHODS - EVALUATION

<p style="text-align: center;">MODES OF TEACHING</p> <p style="text-align: center;"><i>Face-to-face, in-class lecturing, distance teaching and distance learning etc.</i></p>	<p>Face-to-Face. In-class lecturing for the theory/lectures of the course. In-class lecturing for the laboratory exercises of the course as well as in the Vineyard of the Laboratory of Viticulture.</p>						
<p style="text-align: center;">USE OF INFORMATION AND COMMUNICATION TECHNOLOGY</p> <p style="text-align: center;"><i>Use of ICT in teaching, Laboratory Education, Communication with students</i></p>	<p>Use of slide presentation and blackboard, video. Learning process support by access to e-class asynchronous distance learning platform, on-line databases etc. Communication with students via e-mail.</p>						
<p style="text-align: center;">COURSE DESIGN</p> <p><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><i>The study hours for each learning activity as well as the hours of self- directed study are given following the principles of the ECTS</i></p>	<table border="1" style="width: 100%;"> <thead> <tr> <th style="text-align: center;">Activity / Method</th> <th style="text-align: center;">Semester Workload</th> </tr> </thead> <tbody> <tr> <td>Lectures</td> <td style="text-align: center;">13x3=39</td> </tr> <tr> <td>Practice exercises focusing on the implementation of methodologies in smaller group of students in the vineyard (Laboratory exercises)</td> <td style="text-align: center;">13x2=26</td> </tr> </tbody> </table>	Activity / Method	Semester Workload	Lectures	13x3=39	Practice exercises focusing on the implementation of methodologies in smaller group of students in the vineyard (Laboratory exercises)	13x2=26
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	Laboratory practice – Practice in the vineyard	10
	Personal study	50
	Total of Course (25 hours of workload per ECTS)	125
<p>STUDENT PERFORMANCE EVALUATION / ASSESSMENT METHODS</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>I. The evaluation language is Greek.</p> <p>II. The grade in the theory of the course is the outcome of the final written or oral exam.</p> <p>III. The grade in the laboratory part of the course is the outcome of 50% from the examination in ampelography and 50% from the examination in grafting (propagation).</p>	

3. SUGGESTED BIBLIOGRAPHY

<p>- Suggested bibliography: M.N.Stavrakakis Viticulture, 2019, Embryo Publications. M.N.Stavrakakis Ampelography, 2021, Embryo Publications</p> <p>- Related scientific journals: Vitis, American Journal of Enology and Viticulture, Scientia Horticulturae .</p>
