UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	
ACADEMIC YEAR	
ANNO ACCADEMICO EROGAZIONE	
SUBJECT	
CODE	
SCIENTIFIC SECTOR(S)	
HEAD PROFESSOR(S)	DI LORENZO ROSARIO Professore Ordinario Univ. di PALERMO
OTHER PROFESSOR(S)	
CREDITS	
PROPAEDEUTICAL SUBJECTS	
MUTUALIZATION	
YEAR	
TERM (SEMESTER)	
ATTENDANCE	
EVALUATION	
TEACHER OFFICE HOURS	**DI LORENZO ROSARIO** Monday 10:00 12:00 SAAF ed. 4, Ingr. H Tuesday 15:00 18:00 Sede CdL Viticoltura ed Enologia o piattaforma Teams Wednesday 10:00 12:00 SAAF ed. 4, Ingr. H Friday 10:00 12:00 SAAF ed. 4, Ingr. H

DOCENTE: Prof. ROSARIO DI LORENZO

PREREQUISITES	In order to understand the content and the learning objectives of the course the student should have basic knowledge of general horticulture and viticulture
LEARNING OUTCOMES	Knowledge and ability 'to understand The course aims to give at the students scientific and technical knowledge necessary to know the specificity of the viticulture sector. The students will gain the knowledge needed to understand the possible response of the orchard to changes in environmental factors (eco-physiological aspects) and cultivation (management aspects). In particular, students will be able to understand the physiological processes that allow the grape varieties to tolerate / overcome / recover abiotic stress conditions (water stress, heat and bright) and the criteria for deciding if and how to intervene to help / interfere on some fundamental biological processes for the purpose of fruiting. Capacity 'to apply knowledge and understanding The course conveys the knowledge and skills needed to set up and run thetable and wine vineyards, according to the different production objectives and the different type of system. It also allows to understand with holistic approach the relationships between climate, biotic, cultural practices productivity 'and quality' of production and is a basic requirement to successfully apply the knowledge gained to the production world. Making judgments Be able to harmonize all production factors (environment, cultivars, crop management) and suggest innovative solutions to facilitate the best outcome of the production. Enable 'communicative The student, once acquired the specific technical vocabulary and being in possession of fundamental knowledge about the processes of vegetative and reproductive biology and agronomic requirements, He can advise managers and target the wine growers in the most' appropriate technical choices in order to the economic success of the crop. Capacity 'Learning Is expressed in acquiring the ability to relate the different factors that go into determining the productive results in the sector of fruit trees, wine and table grapes, adapting the choices to changing socio-economic conditions of the market, the destination of the product taking into account the most recent technical innovations that can contribute to the achievement of production targets.
ASSESSMENT METHODS	The oral test consists of an interview; the final evaluation is expressed in thirtieths and is derived from the weighted average of the votes by the number of credits of the two modules. The questions, open or semi-structured and specifically designed to test the learning achievements, tend to verify: a) the acquired knowledge and the ability to establish connections between the contents (general sections, special sections, models, etc.) of both modules ; b) the ability to provide independent judgments about the contents of the course and to place the contents of the course within the professional and technological context. The maximum score is achieved if the test ensures the full possession of the following: ability to represent emerging and/or minor issues of the discipline; strong ability to represent the impact of the course content within the sector where content enroll; ability to represent ideas and/or innovative solutions within the professional and technological context; c) adequate exhibition capacity: the maximum scoring can be achieved by persons who demonstrate complete fluency of the scientific and tecnological language, while the minimum scoring will be achieved if the examinee demonstrates a proper use of the language but not sufficiently articulated in relation to the professional context. Final notes go from 18 to 30 points. The student is required to answer at least 2 or 3 oral questions regarding the whole program of study with reference to the suggested books. Questions shall assess a) Knowlesge and understanding; b) cognitive and practical skills; c) ability to communicate; d) Making judgements Note European Qualifications Framework - 30 - 30 cum laude a) advanced knowledge of a field of work or study, involving a critical understanding of theories and principles; b) advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study; c) fully adequate use of specialized language; d) take responsibility for managing and innovate the study field. - 26 29 a) comprehensive, specialised knowledge within a field of work or study and an awareness of the boundaries of that knowledge; b) a comprehensive range of cognitive and practical skills required to develop creative solutions to problems; c) comprehensive use of specialized language d) exercise management and supervision in contexts of work or study activities. -22 25 a) knowledge of facts, principles, processes and general concepts, in a field of work or study; b) basic skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information; c) basic capacity to use specialized language; d) basic capacity to take responsibility for completion of tasks in work or study. -18-21 a) basic general knowledge, b) basic skills required to carry out simple tasks; c) basic capacity to communicate relevant informations; d) basic capacity to take responsibility for completion of tasks in work or study. Compensatory tools and dispensatory measures will be guaranteed by the

	Disability and Neurodiversity Center - University of Palermo (Ce.N.Dis.) to students with disabilities and neurodiversity, based on specific needs and in implementation of current legislation.
EDUCATIONAL OBJECTIVES	The course has the purpose to provide the general theoretical and practical knowledge necessary for the creation and management of "vineyard" systems, in relation to different production targets. Specific objectives of the course are: the study of genetic, environmental, cultural and related interactions in the production results; the management of summer and winter pruning; the choice of trellis system and pruning systems, to evaluate and manage the source-sink relationships, the balance between vegetation and production, and the yield-quality ratio in the vineyard.
TEACHING METHODS	Lecture and vineyards tours and exercise in the field
SUGGESTED BIBLIOGRAPHY	Fregoni M., Viticoltura di qualita. Ed. Fregoni, 1998; Palliotti A., Poni S., Silvestroni O. Manuale di Viticoltura Edagricole, 2018; Autori Vari: La Vite e il vino BayerCropScience, 2007; Autori Vari: L'Uva da tavola BayerCropScience, 2010; Materiale didattico fornito dal Docente

SYLLABUS

Hrs	Frontal teaching
1	Objectives of the discipline and its division and articulation
6	Life cycle; annual cycle, vegetative and reproductive stages; biology of flowering and fruiting.
4	Soil preparation. The propagation material choice. Criteria for rootstock and variety selection. National and Regional profile of the varieties and rootstocks allowed for cultivation in Italy.
5	Vine ecology: site selection; relations climate-soil and biological factors (variety and rootstock) and agronomic (crop technique) of grape production; bio-climatic indices
7	Balance vegetation/production, source-sink relations (interaction and competition), the optimization of functionality and efficiency of the "vineyard" system. Description and operational issues of the of summer and winter pruning in viticulture
8	Viticultural technique: "vineyard" system in modern viticulture. Classification and description of the trellis and pruning systems selection criteria. Interrow and inrow spacing. Physiological basis of pruning in viticulture: training and production pruning
4	Bio-agronomical discussion of mechanical harvest and mechanical pruning
4	Soil management; weeding, mulching, grassing and cover crops selection
9	Water managemet techniques: quantity and times of irrigation. Fertigation: techniques, doses and timing

Hrs	Practice
12	Vineyards tours and exercise in the field