



UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	
ACADEMIC YEAR	
ANNO ACCADEMICO EROGAZIONE	
SUBJECT	
CODE	
SCIENTIFIC SECTOR(S)	
HEAD PROFESSOR(S)	BARONE ETTORE Professore Ordinario Univ. di PALERMO
OTHER PROFESSOR(S)	
CREDITS	
PROPAEDEUTICAL SUBJECTS	
MUTUALIZATION	
YEAR	
TERM (SEMESTER)	
ATTENDANCE	
EVALUATION	
TEACHER OFFICE HOURS	BARONE ETTORE Monday 09:30 11:30 Dip. SEAS ed. 13, II piano, st. 91 Thursday 09:30 11:30 Dip. SEAS ed. 13, II piano, st. 91

PREREQUISITES	Knowledge in the field of Botany and of Agronomy is strongly recommended
LEARNING OUTCOMES	<p>Knowledge of; Comprehension of; Ability to</p> <p>Acquiring knowledge about the morphological and functional principles and scientific-technical base of the cultivation of woody plants in general. Understanding the concepts of "tree-like plant system" and "arboretum" system. Identify the specific features of the main tree species of relevant agronomic interest and acquiring the skills needed for their technical management.</p> <p>Applying knowledge and understanding</p> <p>Ability to evaluate the different relationships between the individual components and the interrelationships that run between the "tree-like plant" and "arboretum" systems, according to a holistic approach aimed mainly to production aspects and the overall quality of the main fruit tree species.</p> <p>Making judgments</p> <p>Be able to suggest, in relation to specific environmental horticultural conditions, the adoption of suitable plant material and technical solutions to manage, and possibly improve, the qualitative and quantitative aspects of tree productions.</p> <p>Communication skills</p> <p>Being able to use a technically correct language but simple, in addressing the tree growers in the technical choices able to configure and manage systems arboreal fruit.</p> <p>Learning ability</p> <p>Acquiring the ability to connect the different factors (genetic, environmental, and horticultural) that affect tree production through consultation of updated technical and scientific information material.</p>
ASSESSMENT METHODS	<p>The exam consists of an oral test with mid-term evaluation (written test) during the intermediate period of lessons. Participation in the mid-term evaluation is optional. The topics of the mid-term test are those primarily related to the part of the General Arboriculture. The mid-term exam is organized in the form of structured written tests (multiple choice tests, true/false, etc.) with thirty questions altogether. The time available for the written test is 1 hour. After the mid-term exam will be awarded a judgment. This assessment will be considered at the limit of sufficiency with at least 18 correct answers out of 30. This judgment will be taken into account for the vote to be attributed at the final exam. The topics of the final exam are primarily those performed in the second part of the semester, in the case of successful mid-term evaluation, or those carried out in the entire semester, in the case of unsuccessful mid-term evaluation or when the intermediate test has not been performed.</p> <p>In case of positive result achieved in the mid-term exam, the examinee must answer at least three questions posed orally.</p> <p>In the case of examination in only one solution, the examinee must answer a minimum of six questions posed orally, on all the topics covered by the program. The vote will be given at the end of the exam.</p> <p>Verification tests are designed to assess whether the student has knowledge and understanding of the topics; has acquired interpretative competence and independence of judgment of case studies, as well as mastery of language and technical problems.</p> <p>Sufficiency rating will be reached when the student shows knowledge and understanding of the subjects at least in general terms, and has sufficient application skills in order to solve concrete cases; He will also have presentation skills and argumentative as to allow the transmission of his knowledge to the examiner. Below this threshold, the examination will be insufficient. The more, however, the examinee with its argumentative and presentation skills can interact with the examiner, and the more his knowledge and application capabilities go into detail on the subject of discipline, the more the assessment is positive. Particularly appreciated is the ability to connect the topics of the part of the General Arboriculture with those relating to the part of Special Arboriculture.</p> <p>The assessment is carried out of thirty.</p>
EDUCATIONAL OBJECTIVES	<p>The aim of the course is to train students on the morpho-functional principles and scientific-technical base of the cultivation of woody plants in general with special reference to fruitculture practical cases of study. Specific objective of the course is, therefore, the study of the 'arboreal plant' system and 'arboretum' system. Will be analyzed in particular the different relationships within each system linking the individual components and the interrelationships that run between the two systems, according to a holistic approach aimed at analyzing the responses of the two systems to horticultural practices as a function of the genotypes and environments of selected crop.</p> <p>Through a schematic vertical deepening of the distinctive features inherent to the main different fresh-fruit and dry-fruit tree species, the student will acquire the technical and practical knowledge more suitable for the orchard design phase and for the crop management of a fruit tree orchard.</p>
TEACHING METHODS	<p>Lectures, laboratory exercises, seminars, field visits</p> <p>Teaching activities are organized in order to facilitate the obtainment of the</p>

	expected learning results, as detailed below in the present form
SUGGESTED BIBLIOGRAPHY	<p>S. Sansavini (a cura di) – Arboricoltura Generale. Patron Editore, 2012</p> <p>E. Baldini - Arboricoltura Generale. CLUEB, 1986.</p> <p>AA.VV. - Frutticoltura generale. REDA, 1992.</p> <p>M. Faust - Physiology of temperate zone fruit trees. J. Wiley & Sons, N.Y., 1989.</p> <p>K. Ryugo - Fruit culture: its Science and art. J. Wiley & Sons, N.Y., 1988.</p> <p>Sansavini S., Ravalli L. Manuale di Ortofrutticoltura, Edagricole. 2012</p> <p>Branzanti e Ricci – Manuale di Frutticoltura, Edagricole</p>

SYLLABUS

Hrs	Frontal teaching
1	Introduction. Objectives and description. Peculiarities of fruit tree species. Different types of tree cultivation
4	Root system
6	Epigeal structures
8	Annual Cycle
6	Fruiting
5	Fruit growth & development
6	Propagation of fruit trees
2	Breeding
4	Planning the orchard
6	Designing and managing the orchard
2	Soil management
2	Fertilization
2	Irrigation
5	Olive cultivation
4	Citrus cultivation
5	Vine & Grapes cultivation
4	Apple & Pear
6	Stone Fruits
Hrs	Practice
1	Morphology
1	Identifying Fruit Trees
2	Propagation techniques
1	Fruit quality evaluation
1	Ecophysiology and related measurements
1	Pruning Techniques
1	Training Systems
Hrs	Others
4	Field excursions