Syllabus

Course Description

Course Title	Principles of Tree Cultivation
Course Code	40188
Course Title Additional	
Scientific-Disciplinary Sector	AGR/03
Language	Italian
Degree Course	Bachelor in Agricultural, Food and Mountain Environmental Sciences
Other Degree Courses (Loaned)	
Lecturers	Prof. Massimo Tagliavini, Massimo.Tagliavini@unibz.it https://www.unibz.it/en/faculties/agricultural-environmental-food-sciences/academic-staff/person/209 Prof. Carlo Andreotti, Carlo.Andreotti@unibz.it https://www.unibz.it/en/faculties/agricultural-environmental-food-sciences/academic-staff/person/27175
Teaching Assistant	
Semester	First semester
Course Year/s	2
CP	6
Teaching Hours	36
Lab Hours	24
Individual Study Hours	90
Planned Office Hours	18
Contents Summary	Tree morphology Basics of tree physiology Vegetative cycle Reproductive cycle (fruit growth and maturation) Tree propagation Tree plantation establishment

	General criteria of tree management
Course Topics	Topics covered in the course: Morphology of the aerial and root part of trees Elements of tree physiology Bud formation and floral biology Fruit growth and ripening Growth and vegetative development Propagation of trees and organisation of the nursery system Genetic improvement of tree crops Rootstocks Growing environment and interactions with trees Arboretum planting Training forms and pruning Irrigation Fertilisation Soil surface management Thinning and use of growth regulators Harvesting
Keywords	Trees, cultivation, physiology, morphology, propagation
Recommended Prerequisites	Successful completion of the 'Agricultural Ecology and Principles of Plant Production' examination is recommended.
Propaedeutic Courses	no
Teaching Format	Lectures, tutorials, laboratory activities and excursion; face-to-face teaching
Mandatory Attendance	no
Specific Educational Objectives and Learning Outcomes	Knowledge and understanding of the biological and physiological characteristics of cultivated trees and their interactions with the environment. Applying Knowledge and understanding through the analysis of growth and reproductive cycles to predict growth and yield scenario as a consequence of environmental changes and management practices. Making judgments To be able to identify for a given environment and production system, the most suitable management techniques in order to improve its economic and ecological sustainability.

	Communication skills Ability to present and discuss the acquired knowledge using a scientific terminology and sound arguments. Learning skills Ability to autonomously extend the knowledge acquired during the course by critically reading of scientific literature.
Specific Educational Objectives and Learning Outcomes (additional info.)	Knowledge and understanding of the morphology, biology and physiology of trees in relation to the environment and cultivation techniques. Ability to apply knowledge and understanding through the analysis of the vegetative and reproductive cycles of cultivated trees and the student's ability to predict their behaviour under varying environmental and cultivation conditions. Autonomy of judgement in the critical analysis of the level of sustainability of cultivation techniques and the choice of plant material for a given environment .
Assessment	The course examination is conducted on the basis of an oral test with questions testing the knowledge acquired, its understanding and its application and transfer to applied cases.
Evaluation Criteria	Awarding a single final grade. Criteria for awarding the grade: the clarity of the answer, the appropriate use of the terminology, the ability to summarise, the argumentative pertinence, the autonomy of judgement and the ability to re-elaborate are assessed.
Required Readings	Copies of the slides presented by the lecturer, available in the 'reserve collection' - Sansavini S. et al. (ed.), General Arboriculture. Patron publisher. 2012.
Supplementary Readings	Dizionario tecnico trilingue "The terms related to grapes and fruit: a small technical dictionary"

	Applied Tree Biology di Andrew D. Hirons e Peter A. Thomas. 2018 Gentile, Inglese e Tagliavini (ed.), Arboricoltura Speciale. Edagricole. 2022
Further Information	Lessons are recorded by the lecturer
Sustainable Development Goals (SDGs)	No poverty, Life on land, Good health and well-being, Zero hunger