



UNIVERSITÀ
DEGLI STUDI DI BARI
ALDO MORO

DIPARTIMENTO DI
SCIENZE DEL SUOLO, DELLA
PIANTA E DEGLI ALIMENTI

LAUREA MAGISTRALE IN
MEDICINA DELLE PIANTE
INTERNATIONAL JOINT MASTER DEGREE IN
PLANT MEDICINE



General Information	
Academic subject	Fruit crops (Integrated Course: Plant Production)
Degree Course	Master's Degree in Plant Medicine (LM-69)
ECTS credits	6
Compulsory attendance	No
Language	Italian (English presentations for foreign students)

Professor	Name Surname	Mail address	SSD
	Giuseppe Ferrara	giuseppe.ferrara@uniba.it	AGR/03

ECTS details	Area		
	Plant Production		

Class Schedule	
Period	Second Semester
Year	First year
Type of class	Lectures, 4 ECTS (32 hours). Laboratory and field classroom, study case, webinars and workshops, 2 ECTS (28 hours). E-learning could be used for particular situations (physically or psychologically unable students, foreign students, working students, student athletes, etc.) by using online platforms (Teams).

Time management	
Hours	150
In-class study hours	60 (32 hours of lectures + 28 hours of field and laboratory activities)
Out-of-class study hours	90

Academic calendar	
Class begins	March 1, 2021
Class ends	June 11, 2021

Syllabus	
Prerequisites/requirements	Knowledge of General Horticulture (Fruit and Nut tree)
Expected learning outcomes (according to Dublin Descriptors)	<ul style="list-style-type: none"> • <i>Knowledge and understanding</i> <ul style="list-style-type: none"> ○ Knowledge and understanding of the most important technical and scientific aspects of fruit tree species in Mediterranean climate. • <i>Applying knowledge and understanding</i> <ul style="list-style-type: none"> ○ Capacity to apply and understand the characteristics of the different species in order to evaluate their responses in different pedo-climatic and agronomical conditions. • <i>Making informed judgements and choices</i> <ul style="list-style-type: none"> ○ Capacity to evaluate both the best species/varieties and agronomical techniques suitable for a pedo-climatic area. • <i>Communicating knowledge and understanding</i> <ul style="list-style-type: none"> ○ Capacity to explain acquired knowledge with an



	<p>appropriate and technical speech.</p> <ul style="list-style-type: none"> • <i>Capacities to continue learning</i> <ul style="list-style-type: none"> ◦ Capacity to improve knowledge acquired during class with further readings of technical and scientific papers. <p>The results of expected understanding, in terms of knowledge and abilities, are reported in Annex A of the Didactic Regulation of the Master's Degree in Plant Medicine (as European descriptors for Degree; Plant Production area).</p>
Topics of the Course	<p>Fruit tree crops of Mediterranean climate: importance and statistics, systematics, botanical characteristics, pedo-climatic requirements, propagation and rootstocks, physiology of fruit, varieties, orchard/vineyard establishment, trellising and pruning, soil management, irrigation (use of sensors), nutrition, ripening, use of the fruits, harvesting, post-harvest and nutritional facts. A special attention will be given to the use of new technologies (Smart fruit tree production) towards a 4.0 orchard/vineyard management.</p> <p>The following species will be described: apricot, sweet cherry, peach, plum, apple, pear, azarole, citrus spp., grape, olive, almond, walnut, hazelnut, pecan, pistachio, kiwi, fig, pomegranate, carob, mulberry, kaki, sorb, medlar, loquat, cornelian cherry.</p>

Course Program	
Bibliography	<ul style="list-style-type: none"> • Baldini E. – Arboricoltura generale. Clueb (1986). • Peano C., Sottile, F., et al. – Principi di Arboricoltura. Edises (2019). • AAVV – Frutticoltura speciale. Reda (1991). • Boselli, M., et al. – Progressi in Viticoltura. Edises (2016). • Collana Colture & Cultura, Bayer Crop Science (http://www.colturaecultura.it/download). • Liste varietali (http://plantgest.imaginenetwork.com/liste-varietali.cfm). • Norman F. Childers, Modern Fruit Science. Horticultural Publications, 1995.
Notes	
Teaching methods	Lectures will be given with Power Point presentations, videos, activities in lab and field.
Assessment methods	<p>A midterm oral exam is scheduled for students enrolled to the Course. This exam will test the course's information at that date of the semester. The midterm exam is expressed as 30 and if passed, in the following oral exam the rest of the course's information will be tested. The joint results of the two exams will give the final score expressed as 30.</p> <p>The final exam will consist on an oral test, as reported in the Guidelines of the Master's Degree of Plant Medicine (art. 9) and in the Annex A. In particular, the student will give an oral presentation on a topic related to the course which will be successively discussed with N.3 questions on other topics of the course.</p> <p>The evaluation of the student will be based on established</p>



	<p>criteria, as explained in the Annex A of the Master's Degree of Plant Medicine. The final grade will be an average of both the midterm and final exam. For foreign student the exam consists of an oral test in English with questions related to the course's information.</p>
<p>Evaluation criteria</p>	<ul style="list-style-type: none"> • <i>Knowledge and understanding</i> <ul style="list-style-type: none"> ○ Description of morpho-physiological characteristics of fruit tree species in Mediterranean climate. ○ Knowledge of cultural practices applied to the different fruit tree species. • <i>Applying knowledge and understanding</i> <ul style="list-style-type: none"> ○ Capacity to analyze the different species requirements in various pedo-climatic conditions. ○ Ability to know and use the different cultural practices for the fruit tree species. • <i>Making informed judgments and choices</i> <ul style="list-style-type: none"> ○ Advice the choice of species/varieties in various pedo-climatic conditions. ○ Advice the best cultural practices for the various fruit tree species. • <i>Communication skills</i> <ul style="list-style-type: none"> ○ Explain the acquired knowledge with an appropriate speech. ○ Ability to give oral presentations for educational purposes on the acquired knowledge. • <i>Capacities to continue learning</i> <ul style="list-style-type: none"> ○ Plan and manage orchards and vineyards with both the appropriate choice of the species/varieties and cultural practices. ○ Improve knowledge with readings of technical and scientific papers.
<p>Further information</p>	<p>Visiting hours Every day from 8.30 to 13.30 pm according to a scheduled appointment. Tutoring could be also done on online platforms (Teams).</p>