General Information	
Academic subject	Fruit trees productions and quality of raw materials (I.C. Quality of vegetable raw matters)
Degree course	Bachelor programme: Food Science and Technology
ECTS credits	3 ECTS
Compulsory attendance	No
Teaching language	Italian

Subject teacher	Name Surname	Mail address	SSD
	Salvatore Camposeo	salvatore.camposeo@uniba.it	AGR/03

ECTS credits details		
Basic teaching activities	2 ECTS Lectures	1 ECTS Laboratory or field classes

Class schedule	
Period	II semester
Course year	First
Type of class	Lecture- workshops, field classes

Time management	
Hours	75
In-class study hours	30
Out-of-class study hours	45

Academic calendar	
Class begins	March 2th, 2020
Class ends	June 12th, 2020

Syllabus	
Prerequisites/requirements	Principles of Biology and General Botany.
Expected learning outcomes	*Knowledge and understanding* ○ Knowledge of the biology of fruit tree species and of the agronomic and environmental factors affecting the quality fruit production for industry *Applying knowledge and understanding* ○ Skill to apply a systemic approach to the evaluation of fruit quality control factors to the assessment of the composition and the destination of the production ○ Understanding phenomena and constituents determining fruits quality for industry and its evolution *Making informed judgements and choices* ○ Correctly advising solutions to change properties and quality of fruits for industry ○ Correctly advising analytical approaches to monitor properties and quality of fruit production for industry *Communicating knowledge and understanding* ○ Skill to describe the main nutritional and nutraceutical utilities of the fruits and their essential characteristics for the specific use for industrial transformation *Capacities to continue learning* ○ Updating the knowledge of main fruits chain for industry. The expected learning outcomes, in terms of both knowledge and skills, are provided in Annex A of the Academic Regulations of the Course in Food Science and Technology (expressed through the European Descriptors of the qualification)

Contents	○ Classification, systematic framework, origin and spread; organography and fruiting cycle; factors affecting fruit quality: cultivar, cropping systems and agricultural techniques; climatic and pedological factors; breeding. ○ Definition and determination of fruit quality according to the methods and disciplinary of production.
Course program	
Reference books	• Lecture notes and educational supplies provided during the course. • AA.VV. Arboricoltura generale. Patron Editore, 2012. • Sansavini S., Errani A. (Eds.). Frutticoltura ad alta densità. Edagricole, 1998. • Sanasavini S (Ed.), Nuove frontiere dell'arboricoltura italiana. Oasi Alberto Perdisa, 2007. • De Pascale S., Inglese P., Tagliavini M. (Eds.). Harvesting the sun. SOI, 2018 (disponibile sul sito). • Knee M. (Ed.). Fruit quality and its biological basis. Sheffield Academic Press, 2002. • Thompson A. K.. Fruit and vegetables. Harvesting, handling and storage. 3rd Edition. Blackwell Publishing, 2014. • Scientific reviews
Notes	
Teaching methods	Lectures will be presented through PC assisted tools (PowerPoint, video). Field and laboratory classes, reading of regulations will be experienced. Lecture notes and educational supplies will be provided by means of online platforms.
Evaluation methods	The exam consists of an oral dissertation on the topics developed during the theoretical and theoretical-practical lectures in the classroom and in the laboratory/production plants, as reported in the Academic Regulations for the Bachelor Degree in Food Science and Technology (article 9) and in the study plan (Annex A). Students attending at the lectures may have a middle-term preliminary exam, consisting of a written test, relative to the first part of the program, which will concur to the final evaluation and will be considered valid for a year. The evaluation of the preparation of the student occurs on the basis of established criteria, as detailed in Annex B of the Academic Regulations for the Bachelor Degree in Food Science and Technology. Non-Italian students may be examined in English language, according to the aforesaid procedures.
Evaluation criteria	*Knowledge and understanding* ○ Describing the main commodity parameters of fruits and the factors affecting the fruit production quality *Applying knowledge and understanding* ○ Describing phenomena and constituents determining the characteristics and the quality of fruits *Making informed judgements and choices* ○ Expressing reasonable hypotheses about solutions to change properties and quality of fruit productions *Communicating knowledge and understanding* ○ Describing the main nutritional and nutraceutical functions of the fruits and their essential characteristics for industry *Capacities to continue learning* ○ Expressing reasonable hypotheses about the evaluation of quality chain

Receiving times	Thursday 9.00 a.m. – 12.30 p.m. by appointment only