

COURSE: [Fruit Trees](#)

ACADEMIC YEAR: [2019/2020](#)

TYPE OF EDUCATIONAL ACTIVITY:

TEACHER: Vitale NUZZO

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website:

phone: +39 0835 351403

mobile (optional): this service is not activated

Language: Italian

ECTS: 4 (lessons e
tutorials/practice)

n. of hours: 40 (24+16)
(lessons e
tutorials/practice)

Campus: Potenza
Dept./School: School of
agriculture, forestry, food and
environmental sciences
Program:

Semester: I

EDUCATIONAL GOALS AND EXPECTED LEARNING OUTCOMES

The aims is to provide the scientific and technical bases of fruit trees morphology, anatomy, physiology and post-harvest physiology. In particular this course will supply: (i) elements on morfo-anatomical organization of a fruit trees; (ii) function of the root, trunk, branch, shoot, leaf, flower, fruit; (iii) endogenous and environmental plant regulation (ormones, bud dormancy, transpiration, photosynthesis, respiration, source-sink relationship; (iv) orchard setting-up and sustainable management; (v) vital and annual cycle; (vi) fruit maturation of climacteric and non-climateric fruits; (vii) main pomological and commercial characteristic of some fruits tree species (Kiwi fruit, apricot, peach, apple, pear, grapevine, olive) and their use as typical products.

At the end of the course the students will be able to investigate the morphological, physiological and agronomic aspects, highlighting the relationships plant/environment. Orchard plantation and its sustainable management in order to increase productivity, fruits quality and reduce the application of the external inputs to the orchard system. Provide hints about the characteristics of the main species cultivated in Italy.

PRE-REQUIREMENTS

The following knowldege:

General and Inorganic Chemistry: Oxidation number, pH, redox potential, chemical bond;

Organic Chemistry: Structure and Nomenclature of organic molecules;

Genetics: Cell structure, DNA, Heredity.

SYLLABUS

Introduction to fruits trees cultivation and production (Organography; Photosynthesis, Respiration; Phytohormones)

Annual cycle (Bud dormancy, Vegetative and reproductive growth, maturation and ripening, fruit tree composition)

Orchard setting and sustainable management

TEACHING METHODS

This course is a 40 hours of classroom theoretical lessons (24 hours) and tutorial activities, project works, (16 hours). Lectures will be supported by blackboard use, slides projection, Workshops with national experts; Exercises, analysis and study cases discussions

EVALUATION METHODS

Oral examination

TEXTBOOKS AND ON-LINE EDUCATIONAL MATERIAL

The didactic materials consists of textbooks, slides and scientific papers, mailed to the student before or just after the lesson

Textbook

- Sansavini S., Costa G., Gucci R., Inglese P., Ramina A., Xiloyannis C. Arboricoltura generale. Patron Editore, pp 532 ISBN: 9788855531894

Journal and web links:

Frutticoltura

Terra e Vita (Edagricole),

L'Informatore Agrario., <http://www.informatoreagrario.it/>

<http://listevarietali.imagelinenetwork.com/>

<http://www.fao.org/hortivar/index.jsp>

[http://www.agraria.it/isf/ Publ.htm](http://www.agraria.it/isf/Publ.htm)

<http://www.caf.wvu.edu/kearneysville/wvufarm7.html>

<http://www.ismea.it>

INTERACTION WITH STUDENTS

The first lesson the structure and organization of the course and the evaluation procedure will be presented.

The teaching material (slide print-outs) will be made available to students on the site: <https://elearning.unibas.it/>

The lecturer will be available for receiving students after appointment. Contacts are reported on the teacher web site (<http://docenti.unibas.it/site/home/docente.html?m=001497>)

EXAMINATION SESSIONS (FORECAST)¹

12/06/2019, 16/07/2019, 17/09/2019, 15/10/2019, 12/11/2019, 10/12/2019;

22/01/2020, 26/02/2020, 25/03/2020, 22/04/2020, 20/05/2020; 10/06/2020; 08/07/2020; 30/09/2020;

21/10/2020; 18/11/2020; 16/12/2020.

SEMINARS BY EXTERNAL EXPERTS YES NO

FURTHER INFORMATION

¹ Subject to possible changes: check the web site of the Teacher or the Department/School for updates.