Master Programme: **Agricultural Science and Technology**

Module: **Horticulture and Floriculture (4 ECTS Lectures + 2 ECTS Laboratory or field classes)**

Lecturer:
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Educational Goals

The main aim of the course is to provide students the knowledge of the elements of the ornamental and vegetable production sector, learning basic cultivation techniques in the open field and in protected cultivation in the Mediterranean climate, with particular regard to: floral biology, soil and climatic needs, planting, management of nutrition and irrigation, harvest and post-harvest, scheduling calendars, preparation techniques for forcing.

Acquirable skills

The student will acquire the tools to be able to make a critical analysis of the functional aspects on ornamental and vegetable technique. The expected learning outcomes, in terms of knowledge and skills, are provided in Annex A of the Academic Regulations for the Degree Course in Agricultural Science and Technology (expressed through the European Descriptors of the qualification; scope of the Discipline of Rural buildings).

Programme *(1 ECTS of Lecture = 8 hours; 1 ECTS of Laboratory and field classes = 14 hours)*

Topics/Subjects	N. ECTS	Number of hours	
		Lectures	Lab & field cl.
Scenarios of horticulture and floriculture in world, national and regional contexts and relations with the market. Systematic framework. Commercial classifications. Quality and brands in vegetable and ornamentals. The problem of nitrates	**0,5**	**4**	**0**
Planting of horticultural crops for direct sowing and transplanting. Notes on rotations, successions and preparatory works. Horticultural ranges	**0,5**	**2**	**3,5**
Herbaceous grafting, horticultural biodiversity, notes on greenhouses and plants	**0,5**	**2**	**3,5**
Fertilization and fertility management in horticulture and floriculture. Introduction to soilless cultivation systems	**0,5**	**2**	**3,5**
Vegetables and ornamentals: Botanical characteristics, floral biology, propagation, physiology, cultivation techniques, harvesting and conservation	**2**	**10**	**10,5**
Bulbous flower species, Rosa, daisy flower and cut chrysanthemum: multiplication techniques and preparation for forcing	**1**	**8**	**0**

Flower and foliage pot plants, bedding plants	**0.5**	**2**	**3.5**
Total	**6.0**	**32**	**28**

Exam

For students attending the course there will be a partial exam after the first part of the course. This partial exam consists of an oral test on the subjects developed during the hours of lecture and exercise. The outcome of this test contributes to the evaluation of the examination of profit and is valid for one academic year. The test is passed with a vote of at least 18/30.

The exam consists of an oral exam on the topics developed during the course. During the oral exam the design work will be a topic of discussion. The test is passed with a vote of at least 18/30. For students who have stood the first part of the exam, the final vote is expressed by the average of the votes obtained in the two oral tests. The oral examinations are public.

The evaluation of the student's preparation is based on pre-established criteria, as detailed in Annex A of the Academic Regulations for the Degree Course in Agricultural Science and Technology

Course materials

- Notes of the lectures and tables distributed during the course
  - Hanan J.J., Greenhouses - Advanced Technology for Protected Horticulture. CRC Press, Boca Raton, 1998.
  - Larson R.A., Introduction to Floriculture. Accademic Press, New York, London, 1990

Additional readings

- Good Agricultural Practices for greenhouse vegetable crops Principles for Mediterranean climate areas
- http://www.fao.org/3/a-i3284e.pdf
- Reed D.W., Water, media and nutrition for greenhouse crops. Ball Publishing Book, Batavia, USA., 1996.

Visiting hours

Official visiting hours: Monday and Wednesday; h. 11.30 – 13.00. Afternoons by previous agreement.

Teaching procedures

The topics of the course will be treated with the help of Power Point presentations and samples of building materials.

For part-time students will be provided lecture notes.