Bachelor Programme: Science and Agricultural Technology
Integrate Course: Agronomy and Field crops (12 cfu)
Module: Field crops (6 CFU)
(4.0 CFU lectures + 2.0 CFU Laboratory or field classes)

Professor
Giuseppe De Mastro – email: giuseppe.demastro@uniba.it - Tel. 080 5443043

Educational Goals

The focus is on management of cropping systems that affect crop production and management with an emphasis on agricultural sustainability and conservation of agroecosystem resources and on management of major food crops growth and quality with an understanding of the relationships between the growing techniques and the quantitative e qualitative values of the production, meeting the requirements of economic profit, technical feasibility and ecological sustainability.
Origins, significance, distribution, product target, morphological and biological characteristics, cultivation techniques.

Acquirable skills

Students will acquire technical competency for a basic food crop management and evaluation of quality of vegetable raw materials.
The expected learning outcomes, in terms of know how and skills, are listed in the Attachment A of the Academic Regulation of the Agricultural Science and Technology Degree Program (expressed through the European Describers of the educational qualification; area of interest: disciplines of Plant Production

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

Topic/Subject	N. ECTS	Number of hours	
		Lecture	Lab & field cl.
Cropping Systems: Principles and Management	**0.3**	**4**	**-**
Principles of Ecology in Plant Production	**0.5**	**4**	**-**
Winter cereals: wheat and barley - *origin and diffusion* - *bioagronomic aspects related to the nutritional, qualitative and technological characteristics*	**1.5**	**8**	**7**
Spring cereals: rice and corn - *origin and diffusion* - *bioagronomic aspects related to the nutritional, qualitative and technological characteristics*	**1.5**	**8**	**7**
Pulses: soya, fava bean, chickpea, bean - *origin and diffusion* - *bioagronomic aspects related to the nutritional, qualitative and technological characteristics*	**1.5**	**8**	**7**
Sugar beet - *origin and diffusion* - *bioagronomic aspects related to the nutritional, qualitative and technological characteristics*	**0.5**	**4**	**2**
Oilseeds: rapeseed, sunflower - *origin and diffusion* - *bioagronomic aspects related to the nutritional, qualitative and technological characteristics*	**1.0**	**2**	**2**
Open field vegetables: potato, tomato - *origin and diffusion* - *bioagronomic aspects related to the nutritional, qualitative and technological characteristics*	**1.0**	**2**	**2**
Total	**3.0**	**16**	**14**

Exam

There will be a midterm test carried out in written form on the topics developed during lectures.

The exam consists of an oral test on the topics developed during the lectures, both theoretical and practical.

The evaluation of the student's preparation is based on pre-established criteria, as detailed in Annex A of the Didactic Regulations of the Bachelor Programme in AGRICULTURAL SCIENCE AND TECHNOLOGY.

The midterm test evaluation is expressed in thirtieths and it averaged with the grade achieved during the exam session.

Support materials

- Notes of the lectures distributed during the course.
- Baldoni, R., Giardini, L., Coltivazioni Erbacee – Cereali Proteaginose. Patron Editore. 2000
- Baldoni, R., Giardini, L., Coltivazioni Erbacee – Piante oleifere, da zucchero, da fibra, orticole e aromatiche. Patron Editore. 2000
- Baldoni, R., Giardini, L., Coltivazioni Erbacee – Foraggere e tappeti erbosi. Patron Editore. 2000

Additional readings

- Agronomica Gruppo Eridania Béghin-Say. Le tecniche di coltivazione delle principali colture agroindustriali. Agronomica S.r.l. Consortile. 1995
- Goudriaan, J.; van Laar H. H., Modelling potential crop growth processes. Dordrecht: Kluwer Academic Publ., 1994
- Loomis, R. S.; Connor, D. J., Crop ecology, Cambridge University Press, 1992
- http://www.fao.org/default.htm
- http://www.agronomy.org/journals/
- http://crop.scijournals.org/
- http://www.agraria.com/ita/agrilink/orgit.html

Visiting hours

All days by previous agreement.

Teaching procedures

Lectures will be presented through PC assisted tools (Powerpoint, Adobe Acrobat, etc.), slide projector, overhead, and VHS films.

Text book for foreign students (LLP-Erasmus, Tempus, ecc.):

Principles of Field Crop Production (4th Edition)
by John H. Martin (Author), Warren H. Leonard Deceased (Author), David L. Stamp (Author), Richard P. Waldren (Author)