

COURSE: Herbaceous Crops

ACADEMIC YEAR: 2016-17

TYPE OF EDUCATIONAL ACTIVITY: (Basic, Characterizing, Affine, Free choice, Other) Characterizing

TEACHER: prof. Mariana Amato

e-mail: mariana.amato@unibas.it

website:

phone: +390971205385

mobile (optional): +393293606261

Language:

ECTS: 6 (5 lessons + 1  
tutorials/practice)

n. of hours: 56 (40 lessons +  
16 tutorials/practice)

Campus: Potenza/Matera  
Dept./School: Scuola di Scienze  
Agrarie, Forestali, Alimentari ed  
Ambientali (SAFE)  
Program:

Semester: II

#### EDUCATIONAL GOALS AND EXPECTED LEARNING OUTCOMES

Sintetizzare in lingua inglese i contenuti riportati nella scheda in lingua in italiana.

The course aims to provide the basic knowledge about the productive cycle of the main herbaceous crops, and to provide elements for understanding the relations between agricultural systems, management and quality of product, developing criteria and methods for planning appropriate management strategies oriented to cropping system sustainability and productive/qualitative goals. Learning outcomes also include being able to use tools and instruments for the evaluation of products, for identifying relevant elements of the productive cycle of food herbaceous crops and their interactions and for planning the use of management techniques.

#### PRE-REQUIREMENTS

Sintetizzare in lingua inglese i contenuti riportati nella scheda in lingua in italiana.

#### SYLLABUS

Sintetizzare in lingua inglese i contenuti riportati nella scheda in lingua in italiana.

The productive cycle of the main herbaceous crops will be addressed. Contents include the main agricultural management techniques, the effect of agricultural management on food yield and quality, and the main problems and issues related to sustainability. Criteria for identifying vegetative and reproductive parts of the main herbaceous crops will be addressed. Instrumentation and tools for decision support and evaluation of management techniques relevant for herbaceous crops will be introduced to students. Main subjects will be:

Introduction and base elements of herbaceous crops (5 h lesson + 2 h practice)

Wheat as a model crop (16 h lesson + 8 h practice)

Other cereals (8 h lesson + 3 h practice).

Oilseed and legume crops (7 h lesson + 1 h practice)

Forage crops (4 h lesson + 2h practice)

#### TEACHING METHODS

Riportare una (o più) delle seguenti voci: Theoretical lessons, Classroom tutorials, Laboratory tutorials, Project works, Technical visits, Other activities (specificare): Theoretical lessons, Classroom tutorials, Laboratory tutorials, Se utile, riportare ulteriori dettagli, come specificato nell'esempio riportato nella scheda in lingua in italiana.

#### EVALUATION METHODS

Riportare una (o più) delle seguenti voci: Intermediate verifications, Written examination, Discussion of a project work, Practical test, Oral examination, Other methods (specificare). Written or oral examination, Sintetizzare in lingua inglese i contenuti di dettaglio riportati nella scheda in lingua in italiana.

Written exams are held during the course: one mid-term exam and one final exam. Each written exam consists of 4 open-answer questions + 3 questions on practical session, regarding the identification of plant species from seeds or other relevant parts, or the calculation/measurement of simple quality parameters. The written exam lasts 50

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minutes. The minimum score for passing is 18/30. The final grade is the average of grades from the two written exams. Students who don't wish to take the written exams or who don't pass them will take the oral exam.

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#### TEXTBOOKS AND ON-LINE EDUCATIONAL MATERIAL

Riportare in lingua inglese i contenuti riportati nella scheda in lingua in italiana.

Educational materials are textbooks and materials provided by the teacher to students who provide their e-mail at the beginning of the course.

Textbooks:

Coltivazioni erbacee vol. I - Cereali e proteaginose di Baldoni / Giardini Patron editore

Coltivazioni erbacee vol. II - Piante oleifere, da zucchero, da fibra, orticole e aromatiche

di R. Baldoni e L. Giardini Patron editore

Coltivazioni erbacee vol. III - Foraggiere e tappeti erbosi di R. Baldoni e L. Giardini Patron editore

Other references:

Principles of Cereal Science and Technology, Third Edition 2010 Jan A. Delcour and R. Carl Hoseney R. Carl AACC International

AA.VV. Il grano. Collana Coltura & Coltura, ed. Art Servizi Editoriali, Bologna.

AA.VV. Il mais. Collana Coltura & Coltura, ed. Art Servizi Editoriali, Bologna. Letture: FAO:

The state of food insecurity, 2008 ([www.fao.org](http://www.fao.org)) FAO 2008. Climate Change: implications for food safety

([www.fao.org](http://www.fao.org)) MIPAAF. Piano Cerealicolo Nazionale INEA: Rapporto sull'agricoltura italiana ([www.ismea.it](http://www.ismea.it)) Fonti

statistiche: [www.fao.org/corp/statistics/en/](http://www.fao.org/corp/statistics/en/) [www.inea.it/pubbl/itaco.cfm](http://www.inea.it/pubbl/itaco.cfm) [www.USDA.org](http://www.USDA.org)

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#### INTERACTION WITH STUDENTS

Riportare in lingua inglese i contenuti riportati nella scheda in lingua in italiana.

At the beginning of the course teaching methods, objectives, contents and dates of exams are presented. A list of students who wish to attend the course, attend laboratory session and receive teaching materials is made, and their e-mail are collected.

Educational materials are sent to students who have provided their e-mails before or right after each lesson.

Students may meet the teacher at her office preferably on Mondays 9.00 to 11.00 and Wednesday 9.30 to 11.30 or at other times by fixing an appointment through e-mail or phone call.

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#### EXAMINATION SESSIONS (FORECAST)<sup>1</sup>

Riportare le date inserite nella scheda in lingua italiana

21/09/2016, 12/10/2016, 16/11/2016, 14/12/2016, 18/01/2017, 15/02/2017, 15/03/2017, 12/04/2017, 17/05/2017, 21/06/2017, 12/07/2017

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SEMINARS BY EXTERNAL EXPERTS YES  NO

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#### FURTHER INFORMATION

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