

COURSE: NON FOOD HERBACEOUS CROPS

ACADEMIC YEAR: 2016-17

TYPE OF EDUCATIONAL ACTIVITY: Characterizing

TEACHER: Piergiorgio Gherbin

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Language: Italian

ECTS: 8 lessons + 1 tutorial	n. of hours: 64 lessons + 16 tutorial	Campus: Potenza Dept./School: School of Agriculture, Forestry, Food and Environmental sciences Program: Agricultural Sciences and Technology (LM)	Semester: 1 st
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EDUCATIONAL GOALS AND EXPECTED LEARNING OUTCOMES

Content and knowledge: systematics, biology, cultivation technique and use of the product of the main alternative non-food crops to be proposed for Italy. The discipline is framed in view of the diversification of crops depending on the production sustainability. Production sectors treated: technical oils, biomass, fiber, energy, starch, alcohol, dyes, sweeteners, gums, biocides crops, cover crops, technical turves.

Skills: Analysis of agronomic production problems of the studied context; identification of agronomic actions to be proposed with particular reference to the comparative evaluation of different herbaceous species, in function, primarily, of / and non-food uses of the same.

PRE-REQUIREMENTS

- Bachelor degree in Agricultural Technology
- Knowledge of the principles of Agronomy and Crop Science

SYLLABUS

CONTENTS OF THE COURSE

With the active participation in teaching hours and by personal study of texts / references provided by the teacher, the student will acquire knowledge about:

ECTS 1: general problems relating to the areas of use of the products obtained from alternative non-food crops, with particular reference to the environmental advantages offered by these, with reference to the technical routes both of the type of product obtained and to its industrial utilization.

ECTS 2,3: a) the potential offered by the major species of agricultural interest for the production of fibers and/or to industrial use of biomass energy target; b) elements that characterize biology, systematics, agro-technical, production, characteristics and use of the product/s.

ECTS 4: a) the potential offered by the major species of agricultural interest for the production of technical oils; b) elements that characterize the biology, systematics, the agro-technical, production, characteristics and use of the product/s.

ECTS 5: a) the potential offered by the major species of agricultural interest for the production of sugar and starch; b) elements that characterize the biology, systematics, the agro-technical, production, characteristics and use of the product/s.

ECTS 6: a) potential offered by the main species for the coverage of agricultural land (cover crops) and species intended for the realization of technical grassing; notes on "bioremediation"; b) elements that characterize the biology, systematics, the agrotecnica, effectiveness and possible uses.

ECTS 7: a) potential of the main species used for the production of alternative sweeteners and species for biocidal activity; b) elements that characterize the biology, systematics, the agrotecnica, effectiveness and possible uses.

ECTS 8: a) the potential offered by major species intended for the extraction of natural dyes, and species for the production of natural gums; notes on some species "multi-purpose"; b) elements that characterize the biology, systematics, the agrotecnica, effectiveness and possible uses.

ECTS 9 (tutorial): Preliminary considerations by drafting a scientific report based on bibliographic and related oral

presentation using audiovisual.

TEACHING METHODS

The course is organized as follows:

- theoretical lessons on all subjects of the course (64 hours)
 - weekly classroom tutorials, aimed to setup the creation and exhibition of the work related to 9th ECTS
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EVALUATION METHODS

The aim of the examination is to test the level of achievement of the previously mentioned educational goals. The examination is divided into 2 parts:

- oral presentation of the work done in ECTS 9 as practical test;
 - oral examination which will assess the ability to link and compare different aspects covered during the course.
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TEXTBOOKS AND ON-LINE EDUCATIONAL MATERIAL

AAVV : Oleaginose non alimentari. Edagricole.

AAVV : Le colture da fibra. Edagricole.

AAVV : Le piante coloranti. Edagricole.

AAVV : Le colture di nicchia. Edagricole.

Baldoni R., Giardini L. : Coltivazioni Erbacee

Class notes

INTERACTION WITH STUDENTS

Reception in the studio in days / times scheduled

Telephone and e-mail contacts.

EXAMINATION SESSIONS (FORECAST)¹

Usually the second Tuesday of each month except August.

SEMINARS BY EXTERNAL EXPERTS YES

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