

COURSE: Pasture management in mountain environment (AGR0267)

ACADEMIC YEAR: 2018/19

TYPE OF EDUCATIONAL ACTIVITY: Characterizing

TEACHER: Antonio Sergio De Franchi

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Language: Italian

ECTS: 6 + 1	n. of hours: 40 + 16	Campus: Potenza School of Agriculture, Forestry, Food and Environmental sciences Program: Forestry and Environmental sciences (LM)	Year: 2 Semester: 1 <sup>st</sup>
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#### EDUCATIONAL GOALS AND EXPECTED LEARNING OUTCOMES

The course examines the herbaceous species of possible cultivation and management in natural environments, and arable land in the mountain. It studies the selection of the species and varieties, cultivation techniques suitable for production use and soil conservation and environmental protection. The choice of crops, limited by soil and climate factors, narrows to those that have a good chance of yield and positive economic results in the enhancement of the environment. The cultivation and agronomic management of some cereals (wheat, rye, barley, oats, corn), of renewal crops (potato) and especially forage species (grasslands, meadows-grazing meadows and pastures) in intensive cropping systems, extensive and natural.

The student will acquire skills relating to: the knowledge of the dynamics of cultural processes and interaction with the environment of the herbaceous species studied in Mediterranean mountain environments; the ability to apply knowledge and understanding in order to design choices and agronomic cultivation and management of herbaceous formations in natural and artificial systems; the ability to communicate and properly transmit the acquired knowledge and implement them with agro-cultural practices in the mountain and hill areas.

**Knowledge and understanding:** the student must demonstrate knowledge of the main cultivation techniques and must be able to understand and to address the sustainable management of herbaceous cultivation in extensive and natural systems.

**Ability to apply knowledge and understanding:** The student must show ability to carry out the cultivation activities in a sustainable management approach in extensive and natural management systems.

**Judgment autonomy:** the student must be able to evaluate and choose the most suitable tools for setting up correct strategies to ensure the correct agronomic and sustainable management of crops in extensive and natural management systems.

**Communicative skills:** the student must have the ability to explain opportune management strategies of crop systems using paper or oral presentation in the field of herbaceous cultivation management using the correct technical-scientific language.

**Learning skills:** The student must be able to update and enrich opportune knowledge through consultation of scientific publications and computer tools applied to herbaceous cultivation.

#### PRE-REQUIREMENTS

Knowledge of the principles of Agronomy

#### SYLLABUS

ECTS 1: role of the mountain economy; definition of mountain. Mountain environments. Aspects and climatic elements and their interaction with cultivated plants. The physico-chemical abnormalities in the mountains of the land and the means to increase the fertility of the soil.

ECTS 2: possible herbaceous crops in the mountains: wheat, barley, oats, rye, triticale, corn, potato: cultivation and agronomic management techniques.

ECTS 3,4,5: grasslands; meadows and meadows-pastures; pastures: agricultural techniques of cultivation and the



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main species grasses and legumes management in mono, polyphyte and natural systems management.

ECTS 6: Exercises: case studies and management aspects of crops and herbaceous natural formations.

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#### TEACHING METHODS

The course is organized as follows: lectures on all subjects of the course (40 hours);

Guided exercises in the open field (16 hours).

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#### EVALUATION METHODS

Final oral examination during which we will evaluate the critical capacity of connection and comparison of the different aspects of the agronomic management of herbaceous crops grown in the Mediterranean agricultural environments.

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#### TEXTBOOKS AND ON-LINE EDUCATIONAL MATERIAL

Giardini L. e Baldoni R.: Coltivazioni erbacee. Ed. Patron

Baldoni R., Kokeni B., Lovato A.: Le piante foraggere. Ed. Reda

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#### INTERACTION WITH STUDENTS

Reception in days /times scheduled at the study of the teacher (SAFE)

Contacts e-mail and telephone.

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#### EXAMINATION SESSIONS (FORECAST)

Monthly, agreed by telephone or e-mail

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SEMINARS BY EXTERNAL EXPERTS      YES

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#### Examination committee:

- Prof. Amato Mariana
- Prof. Gherbin Piergiorgio
- Prof. Rivelli Anna Rita
- Dr. Landi Giuseppe