



UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Scienze Agrarie, Alimentari e Forestali
ACADEMIC YEAR	2019/2020
BACHELOR'S DEGREE (BSC)	AGRICULTURAL SCIENCES AND TECHNOLOGIES
SUBJECT	CROP SCIENCE
TYPE OF EDUCATIONAL ACTIVITY	B
AMBIT	50125-Discipline della produzione vegetale
CODE	12498
SCIENTIFIC SECTOR(S)	AGR/02
HEAD PROFESSOR(S)	DI MICELI GIUSEPPE Professore Associato Univ. di PALERMO
OTHER PROFESSOR(S)	
CREDITS	7
INDIVIDUAL STUDY (Hrs)	115
COURSE ACTIVITY (Hrs)	60
PROPAEDEUTICAL SUBJECTS	
MUTUALIZATION	
YEAR	2
TERM (SEMESTER)	2° semester
ATTENDANCE	Not mandatory
EVALUATION	Out of 30
TEACHER OFFICE HOURS	DI MICELI GIUSEPPE Monday 09:00 11:00 Studio del docente - Dip. SAAF Ed.4 Ingresso L, 2° Piano - studio 210 Friday 10:00 12:00 Studio del docente - Dip. SAAF Ed.4 Ingresso L, 2° Piano - studio 210

PREREQUISITES	The attendance of the course "Herbaceous Crops" requires the knowledge of Agronomy, Botany and Biology, for the understanding of the main content and objectives of the course. The course provides no mandatory prerequisites, but the knowledge of some subjects is needed to understand the main technical and practical problems of the course and to provide rational solutions.
LEARNING OUTCOMES	<p>a) Knowledge and understanding The course permits students to gain knowledge about the main agriculture cultivation and production processes of the arable field crops and cropping systems. The course also allows to program technical-agronomic practices of the main open field crops, when considering the effect of climate factors. The understanding of the main contents of the course requires a specific technical language of this course.</p> <p>b) Applying knowledge and understanding The main aims of the course are to encourage the students to develop skills to provide solutions to several problems in the management of cropping systems and arable field crops, to improve the management of arable field crops and to increase the efficiency of agronomic practices in agriculture, considering also the environmental compatibility.</p> <p>c) Making judgements The course requires students to be able to independently organize and plan a series of agronomic practices in order to manage the arable field crops and more important cropping systems and improve the farming activities exploiting the scientific research.</p> <p>d) Communications The course requires that students have communication skills in order to transfer clearly information and technical solutions to professionals, entrepreneurs, administrators and commentators. It requires that the dissemination activity is also carried out towards to a non-expert public.</p> <p>e) Lifelong learning skills The course requires that students are able to study issues of the course by consulting scientific literature, scientific publications and popular magazines. It requires, also, the ability to transfer the technical knowledge gained following the course or specific meetings, in business and professional sector.</p>
ASSESSMENT METHODS	The course consists of an oral test. The oral test consists of an interview in order to check the skills and disciplinary knowledge provided by the course. Evaluation will be provided as a mark out of 30. The interview will include open-ended and semi-structured questions in order to verify the gained knowledge, the computing and presentation skills of the student. With regard to the evaluation of knowledge, students have to be able to make connections between the course contents. The evaluation of computing skills will be determined by the student's ability to provide independent judgments about the course contents, to understand the possible practical application of the course and to place the subject content within the target professional context. With regards to the evaluation of the computing capacities, a high quality of language will be required for the reference professional context. The highest score (30/30 with honours) will be awarded to the student who will prove to have a high capacity for judgment, a strong ability to put into practice the knowledge of the course through examples and/or models, a strong ability to provide solutions to the main problematic and to have a high quality the technical language. The lowest score (18/30) will be awarded to the student who will prove to have a low capacity for judgment, a poor ability to put into practice the knowledge of the course through examples and/or models, a poor ability to provide solutions to the main problematic and to have a low quality the technical language.
EDUCATIONAL OBJECTIVES	The aim of the course "Herbaceous Crops" is to provide knowledge and specialist skills related to the agronomic management of arable field crops and cropping systems related to soil and climate conditions. For each field crop, the main ecological requirements, agronomic practices and the use of products and sub-products will be considered and explained. Each aspect will be examined in relation to recent findings of agronomic research, evaluating also the relationships between crop management and environment. The understanding of the topics requires the knowledge of Agronomy, Botany and Biology. The training will consist of frontal teaching, practices and technical-educational events to visit experimental fields.
TEACHING METHODS	The course consists of frontal teaching, practices and a technical-educational events to visit some experimental fields and farms.
SUGGESTED BIBLIOGRAPHY	Remigio Baldoni, Luigi Giardini. Coltivazioni erbacee. Cereali e proteaginose. Patron Editore, Bologna, 2000. Francesco Bonciarelli. Coltivazioni erbacee da pieno campo. Edagricole, Bologna, 2001.

SYLLABUS

Hrs	Frontal teaching
1	Introduction to the course: main aims of the course and lessons.
12	Cereal crops. Durum wheat and common wheat, barley, oat, corn, triticale and sorghum. General aspects, cropping systems and main practices, production aspects. Products and by-products.
8	Grain legumes. Faba bean, chickpea, lentil, pea, grass pea. General aspects, cropping systems and main practices, production aspects. Products and by-products.
8	Forage crops. Practices, grazing, haymaking and silage. Main grass, prative and self-seeding crops. Multispecies systems and pastures, forage crop systems.
11	Industrial crops. Rapeseed, brassica carinata, sunflower, safflower, linen, canapa, cotton, oregano, rosemary and thyme, General aspects, cropping systems and main practices. Productive and technological aspects. Products and by-products.
Hrs	Others
20	Technical visits and events to experimental fields and farms operating in the field of open field crops.