COURSE OF STUDY Agricultural sciences and technologies

ACADEMIC YEAR *2023/2024*

ACADEMIC SUBJECT Agronomy (I.C. agronomy and herbaceous crops)

General information	
Academic subject	Agronomy (I.C. agronomy and herbaceous crops)
Degree course	Agricultural sciences and technologies
Academic Year	*2023-2024*
European Credit Transfer and Accumulation System (ECTS)	6
Language	Italian
Academic calendar (starting and ending date)	September 25, 2023 - January 19, 2024
Attendance	*no*

Professor/ Lecturer	
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Virtual headquarters	
Tutoring (time and day)	Every day excluding Saturday (by appointment). Tutoring could be also on e-learning platforms.

Syllabus	
Learning Objectives	The Agronomy course gives a large range of knowledge, which is useful to examine and comprehend the multifunctional relationships linking vegetal production and anthropic and non anthropic conditioning factors.
Course prerequisites	Basic knowledge of mathematics, general chemistry, general biology and botany.
Contents	The agroecosystem and its components: soil and atmosphere; Productivity of plant communities. Water management and irrigation. Protective structures. Tillage. Fertilization. Weed management. Reproduction and propagation. Crop consociations and rotations. Farming systems: conventional, conservative, biological, precision. Dry farming.
Books and bibliography	○ Ceccon P., Fagnano M., Grignani C., Monti M., Orlandini S., 2017. Agronomia. EDISES, Napoli ISBN 978 88 7959 965 8 ○ Giardini L.: L'AGRONOMIA (per conservare il futuro), Patron editore, Bologna, 2012 Notes of lectures distributed during the course.
Additional materials	

Work schedule			
Total	Lectures	Hands on (Laboratory, working groups, seminars, field trips)	Out-of-class study hours/ Self-study hours
Hours			
150	*36*	*24*	*90*
ECTS			
6	*4*	*2*	

Teaching strategy	Lectures will be presented through PC assisted tools (Powerpoint, Adobe Acrobate, ect.).
Expected learning outcomes	
Knowledge and understanding on:	• Knowledge of climatic factors, agronomic aspects of soil, water-soil relationships, tillage techniques, dry farming, irrigation and fertilization techniques, crop systems, weed control and agro-ecosystems.
Applying knowledge and understanding on:	• Ability to understand the influence of the cultivation techniques, the climate and the physical, chemical and microbiological characteristics of the soil on the yield and quality of crops.
Soft skills	• *Making informed judgements and choices* ○ Ability to carry out a critical analysis of the effects of the cultivation techniques, the climate and the physical, chemical and microbiological characteristics of the soil on the production and quality of agricultural crops. • *Communicating knowledge and understanding* ○Ability to describe the effects of cultivation techniques on the soil-plant-atmosphere system. • *Capacities to continue learning* ○ The expected learning cpacities, in terms of knowledge and skills, are listed in Annex A of the Study Course Regulations (expressed through the European Degree Program descriptions)

Assessment and feedback	
Methods of assessment	The exam consists of an oral exam on the topics developed during the hours of lecture and theory and practice in the classroom and in the laboratory / production farms, as reported in the Academic Regulations for the Master Course "STA" (Art. 9) and the plan study (Annex A). The evaluation of the student's preparation is based on pre-established criteria, as detailed in Annex A of the Academic Regulations for the Degree Course "Agricultural sciences and technologies". For students who have made the test of exemption, the examination of profit assessment is of thirty, and averaging the obtained votes.
Evaluation criteria	• *Knowledge and understanding* • Assess the ability to understand and highlight the influence of the cultivation techniques, climate and physical, chemical and microbiological characteristics on the yield and quality of crops. • *Applying knowledge and understanding* • Ability to describe the effects of the main aspects of growing

	technique on the agronomic and environmental response of the soil-plant-atmosphere system. • *Autonomy of judgment* ○ To make reasonable hypotheses about the effects of the growing techniques, the climate and the physical, chemical and microbiological characteristics of the soil on the yield and quality of agricultural crops. • *Communicating knowledge and understanding* ○ Assessment of personal abilities, aimed at communication and judgment, both on the technical and on the human and ethical level. • *Communication skills* ○ Ability to organize the acquired knowledge in form of didactic presentation and to articulate it for didactic purposes • *Capacities to continue learning* ○ The assessment of the student's preparation is done on the basis of predefined criteria, as detailed in Annex A of the Master's Degree Course Code. For students who have supported the exemption test, the assessment of the profit test is expressed in thirtieth and averaging the votes obtained.
Criteria for assessment and attribution of the final mark	The final grade is awarded out of thirty. The assessment acquired in this module, together with that of Herbaceous Crops, will contribute to the determination of the final assessment of the I.C. agronomy and herbaceous crops exam.
Additional information	