

COURSE OF STUDY Techniques of Sustainable Agriculture

ACADEMIC YEAR 2023/2024

ACADEMIC SUBJECT C.I Tree ecosystems – Forest tree ecosystems (8 cfu)

General information	
Academic subject	Forest tree ecosystems
Degree course	Sustainable Agriculture
Academic Year	2023/2024
European Credit Transfer and Accumulation System (ECTS)	3 CFU
Language	Italian
Academic calendar (starting and ending date)	
Attendance	Not mandatory, but strongly recommended

Professor/ Lecturer	
Name and Surname	Mario Elia
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Department and address	Villa Sbisà (Campus Ernesto Quagliariello)
Virtual headquarters	Microsoft Teams (in agreement with Professor/ Lecturer)
Tutoring (time and day)	scheduled (in agreement with Professor/ Lecturer)

Syllabus	
Learning Objectives	The course aims to provide the knowledge of the principles of forest ecology and the main forms of forest management. Learning of the multifunctionality of forest ecosystems. The recognition of the main forest types of the Italian southern regions. Understanding the new tools and technologies to support the remote sensing detection of forest resources.
Course prerequisites	Being a first year, first semester exam, there are no specific prerequisites other than those required for access to the degree course
Contents	<ol style="list-style-type: none"> 1. Principles of forest ecology 2. Forest communities 3. Ecological dynamics 4. Forestry and the main forms of forest management, 5. Reforestation 6. The multifunctionality of the forest 7. The woodlands of the southern regions 8. New tools and techniques for the detection of forest resources
Books and bibliography	<ul style="list-style-type: none"> - Paci M., Ecologia Forestale, Ilsole24ore Edagricole, 2011. - Piussi P., Selvicoltura generale. Compagnia delle Foreste S.r.l., 2015. - Del Favero R., I boschi delle regioni meridionali e insulari d'Italia, 2008.
Additional materials	Slides and notes during the classes.

Work schedule			
Total	Lectures	Hands on (Laboratory, working groups, seminars, field trips)	Out-of-class study hours/ Self-study

			hours
Hours			
75	20	10	45
ECTS			
3	2	1	
Teaching strategy			
	The lessons will be delivered in frontal teaching, mixed in authorized cases with the aid of Power Point presentations and other audiovisual tools. There will also be scheduled field trips, seminars, and work group.		
Expected learning outcomes			
Knowledge and understanding on:	<ul style="list-style-type: none"> ○ Principles of forest ecology ○ Forestry and the main forms of management ○ The forest stands of southern Italy ○ New tools and techniques for the acquisition of data of forest resources 		
Applying knowledge and understanding on:	<ul style="list-style-type: none"> ○ Ability to recognize the main forms of government ○ Rudiments of remote sensing 		
Soft skills	<ul style="list-style-type: none"> • <i>Making informed judgments and choices</i> <ul style="list-style-type: none"> ○ Knowing how to recognize a form of government ○ Knowing how to recognize different forest types ○ Connection between remote data and ground data • <i>Communicating knowledge and understanding</i> <ul style="list-style-type: none"> ○ Communicate with appropriate scientific language • <i>Capacities to continue learning</i> <ul style="list-style-type: none"> ○ Deepen forest planning and settlement 		
Assessment and feedback			
Methods of assessment	The procedures for verifying learning will take place exclusively through 1 oral exam. If necessary, and only on specific needs, it will be possible to carry out intermediate tests as required by the teaching regulations.		
Evaluation criteria	<ul style="list-style-type: none"> • <i>Knowledge and understanding</i> <ul style="list-style-type: none"> ○ Sufficient articulation of the course contents • <i>Autonomy of judgment</i> <ul style="list-style-type: none"> ○ Sufficient ability to recognize the different forms of management and the different forest types covered in the course. • <i>Communicating knowledge and understanding</i> <ul style="list-style-type: none"> ○ Ability to link the different concepts addressed during the lessons • <i>Communication skills</i> <ul style="list-style-type: none"> ○ Sufficient ability to discursively organize concepts and content ○ Sufficient use of scientific language • <i>Capacities to continue learning</i> <ul style="list-style-type: none"> ○ Sufficient and exhaustive capacity of autonomous deepening 		
Criteria for assessment and attribution of the final mark	The final grade is awarded out of thirty. The exam is passed when the grade is greater than or equal to 18.		
Additional information			