DEGREE COURSE: *Sustainable agriculture (LP-02)*
ACADEMIC YEAR: *2024-2025*
ACADEMIC SUBJECT *Green Infrastructure (3 ECTS)*

General information		
Academic subject	**Green Infrastructure**	
Degree course	Sustainable agriculture	
Academic Year	1st year	
European Credit Transfer and Accumulation System (ECTS)		**3 CFU**
Language	Italian	
Academic calendar (starting and ending date)	2nd semester	
Attendance	Not mandatory but strongly recommended	

Professor/ Lecturer	
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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 theme of the multifunctionality of natural areas and forest landscapes, with particular regard to the aspects connected to the importance of the provided ecosystem services. As part of the teaching course, the aspects characterizing the analysis of green infrastructures will be analyzed in depth through case studies at multiple scales (eg Natura 2000 network), national, regional and local level. Aspects relating to the ecological connectivity of these areas and the planning methods of new ecological networks will be addressed.
Course prerequisites	Being a first year, second semester exam, there are no specific prerequisites other than those required for access to the degree course
Contents	1. Development of the concept of green infrastructure (I.V.) 2. Green infrastructures and ecosystem services 3. The technical and regulatory bases 4. The scales of application of I.V .: international, national, regional, urban 5. Urban forests and I.V .: environmental ecosystem services (environmental pollution, carbon sequestration, water cycle, temperature mitigation, biodiversity, etc.), socio-cultural (social justice, recreation, human health and well-being) and economic (governance , the third sector, etc.) 6. Examples of I.V. projects at European level 7. Analysis and processing of case studies
Books and bibliography	- Lafortezza, R., Pauleit, S., Hansen, R., Sanesi, G., & Davies, C. (2017). Strategic green infrastructure planning and urban forestry. Routledge handbook of urban forestry (pp. 179-193). - MANUALE SULLE INFRASTRUTTURE VERDI Basi teoriche e concettuali, termini e definizioni

	- Linee guida per la gestione del verde urbano e prime indicazioni per una pianificazione sostenibile Pearlmutter D., Calfapietra C., Samson R., O'Brien L., KrajterOstoic S., Sanesi G., Alonso del Amo R., (2017) The Urban Forest. Cultivating green infrastructure for people and the environment. Springer
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, with the aid of Power Point presentations and other audiovisual tools.There will also be scheduled field trip, seminars, and work group.
Expected learning outcomes	
Knowledge and understanding on:	○ Principles of landscape ecology ○ Methodologies to plan an Ecological network ○ Principles of urban forestry ○ New tools and techniques for the acquisition of data on I.V.
Applying knowledge and understanding on:	○ Basic knowledge on landscape planning ○ Rudiments of remote sensing
Soft skills	• *Making informed judgments and choices* ○ Knowing how to read and present research projects ○ Knowing how to read and present scientific articles ○ Connection between remote data and ground data • *Communicating knowledge and understanding* ○ Communicate with appropriate scientific language • *Capacities to continue learning* ○ Deepen landscape ecology and planning

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	• *Knowledge and understanding* ○ Sufficient articulation of the course contents • *Autonomy of judgment* ○ Sufficient ability to recognize the different forms of managment and the different forest types covered in the course. • *Communicating knowledge and understanding* ○ Ability to link the different concepts addressed during the lessons • *Communication skills* ○ Sufficient ability to discursively organize concepts and content ○ Sufficient use of scientific language • *Capacities to continue learning* ○ 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	