

COURSE OF STUDY: Sustainable Agriculture Techniques

ACADEMIC YEAR: 2023-2024

ACADEMIC SUBJECT:

Module: Basics of geomatics - 2 ECTS

(Module of the Integrated Course: Applied numerical systems - 5 ECTS)

General information	
Year of the course	<i>I</i>
Academic calendar (starting and ending date)	<i>I semester (25/09/ 2023 – 19/01/2024)</i>
Credits (CFU/ETCS):	<i>2 ECTS</i>
SSD	<i>Rural Buildings and Agroforestry Territory -AGR/10</i>
Language	<i>Italian</i>
Mode of attendance	<i>Not mandatory</i>

Professor/ Lecturer	
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Department and address	Dipartimento di Scienze del Suolo, della Pianta e degli Alimenti (Di.S.S.P.A.) Università degli studi di Bari Aldo Moro
Virtual room	"Fondamenti di Rappresentazione del Territorio" team in MS Teams
Office Hours (and modalities: e.g., by appointment, online, etc.)	by appointment set by email

Work schedule			
Hours			
Total	Lectures	Hands-on (laboratory, workshops, working groups, seminars, field trips)	Out-of-class study hours/ Self-study hours
50	7	12	31
CFU/ETCS			
2	1	1	

Learning Objectives	<i>Providing basic principles and application skills in land representation, including GIS techniques.</i>
Course prerequisites	<i>Knowledge of basic principles of Informatics</i>

Teaching strategies	<i>The course consists of lectures and GIS laboratory</i>
Expected learning outcomes in terms of	
Knowledge and understanding on:	<ul style="list-style-type: none"> <i>Knowledge and understanding of land maps</i>
Applying knowledge and understanding on:	<ul style="list-style-type: none"> <i>Capacity of managing GIS maps</i>
Soft skills	Making informed judgments and choices <ul style="list-style-type: none"> <i>Ability to realize an informatic project</i>

	<p>Communicating knowledge and understanding</p> <ul style="list-style-type: none"> ○ Ability to use informatics (drawing, graphic representation, and so on) for communications <p>Capacities to continue learning</p> <ul style="list-style-type: none"> ○ Ability to continue learning by consulting books, papers and digital catalogues
Syllabus	
Content knowledge	<ul style="list-style-type: none"> • Basic cartography for drawing up plans. • Types and contents of territorial and urban plans • Tools and methods of agro-forestry land analysis and planning • Geographic Information Systems (GISs).
Texts and readings	<ul style="list-style-type: none"> • <i>Galiano G. – Alessandro Cutini, Guida alla Pianificazione Territoriale, Edizioni Efesto, Roma, 2020</i> • <i>Oneto G., Manuale di Pianificazione del Paesaggio, Il Sole 24 Ore Pirola, Milano, 1997</i> • <i>Colombo G. e altri, Manuale di Urbanistica, Pirola Editore, Milano, 1994</i> • <i>Leone A., Ambiente e Territorio Agroforestale, Franco Angeli /Urbanistica, Milano 2004</i> • <i>Aruta L. Marescalchi P. Dario Cartografia. Lettura delle carte, Flaccovio Editore, Palermo, 2005</i> • Lecture notes
Notes, additional materials	<ul style="list-style-type: none"> • www.qgis.org
Repository	<i>Didactic material in the course team in MS Teams</i>
Assessment	
Assessment methods	<i>The exam consists of an oral exam on the topics developed during the course and on the evaluation of basic GIS skills.</i>
Assessment criteria	<p>Knowledge and understanding</p> <ul style="list-style-type: none"> ○ Knowledge and understanding of land maps ○ Understanding the use of maps in the process of plan-making, in territorial management and protection <p>Applying knowledge and understanding</p> <ul style="list-style-type: none"> ○ Knowledge and use of the GIS software <p>Autonomy of judgment</p> <ul style="list-style-type: none"> ○ Design of a project with different conditions <p>Communication skills</p> <ul style="list-style-type: none"> ○ Ability to clearly communicate the knowledge to specialists and non-specialists <p>Capacities to continue learning</p> <ul style="list-style-type: none"> ○ Ability to learn and deepen in a self-directed and autonomous way
Final exam and grading criteria	<i>The mark ranges between 0/30 and 30/30, the exam is passed with a mark >= 18/30.</i>
Further information	