

COURSE OF STUDY: Management of green spaces, forests and protected areas (NEST)

ACADEMIC YEAR: 2023-2024

ACADEMIC SUBJECT: Geomatics - 3 ECTS

(module of the Integrated course Applied botany and land monitoring - 9 ECTS)

General information	
Year of the course	1
Academic calendar (starting and ending date)	1 semester (9/10/2023 – 26/01/2024)
Credits (CFU/ETCS):	3
SSD	AGR/10
Language	Italian
Mode of attendance	Attendance not mandatory

Professor/ Lecturer	
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Department and address	<i>Dipartimento di Scienze del Suolo della Pianta e degli Alimenti via Amendola 165/A – 70126 Bari</i>
Virtual room	"Geomatica" team in MS Teams
Office Hours (and modalities: e.g., by appointment, on line 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
75	24		51
CFU/ETCS			
3	3		

Learning Objectives	<i>Provide theoretical principles and application skills in land representation</i>
Course prerequisites	<i>Knowledge of principles of mathematics and physics</i>

Teaching strategie	<i>Topics of the course during lectures will be explained with the help of Power Point presentations. Students will use a GIS software. Each student is advised to install GIS software on his or her own PC. Students will develop basic GIS projects in order to apply their knowledge.</i>
Expected learning outcomes in terms of	
Knowledge and understanding on:	<ul style="list-style-type: none"> ○ Knowledge and understanding of land maps and topography ○ Knowledge and understanding of geographic information systems (GIS)
Applying knowledge and understanding on:	<ul style="list-style-type: none"> ○ Capacity of realizing a basic GIS project, based on land maps and data

Soft skills	<p><i>Making informed judgments and choices</i></p> <ul style="list-style-type: none"> ○ Ability to set up a project <p>Communicating knowledge and understanding</p> <ul style="list-style-type: none"> ○ Ability to communicate in clear and exhaustive way <p>Capacities to continue learning</p> <ul style="list-style-type: none"> ○ Ability to continue learning by consulting books, papers and Web
Syllabus	
Content knowledge	<i>Earth coordinates systems, geoid, ellipsoid, projections, maps, map scale, topographic field, angles, distances, elevation differences; Geographic Information System (GIS); Global Navigation Satellite System (GNSS).</i>
Texts and readings	<i>Lecture notes</i>
Notes, additional materials	<i>www.qgis.org</i>
Repository	<i>Course materials are made available on the course team in MS Teams</i>

Assessment	
Assessment methods	<i>For students enrolled in the year in which the course is taught, there is a non-compulsory exemption test. The exoneration, which takes place on the dates published in the intermediate assessment test diary, consists of a written test in which the student must answer multiple-choice questions on topics from both modules covered in the first half of the integrated course. The outcome of this test contributes to the evaluation of the final oral examination. Students who are not interested in taking the exemption test will take the final oral examination on the entire program as stipulated in the Didactic Regulations of the Course of Study.</i>
Assessment criteria	<ul style="list-style-type: none"> ● <i>Knowledge and understanding</i> <ul style="list-style-type: none"> ○ Knowledge and understanding of land maps, topography and GIS ● <i>Applying knowledge and understanding</i> <ul style="list-style-type: none"> ○ Knowledge and use of GIS software ● <i>Autonomy of judgment</i> <ul style="list-style-type: none"> ○ design of a GIS project with different conditions ● <i>Communicating knowledge and understanding</i> <ul style="list-style-type: none"> ○ Ability to clearly communicate the knowledge to specialists and non-specialists ● <i>Communication skills</i> <ul style="list-style-type: none"> ○ Use of informatics for communication ● <i>Capacities to continue learning</i> <ul style="list-style-type: none"> ○ Ability to learn and deepen topics in a self-directed and autonomous way
Final exam and grading criteria	<p><i>The single, comprehensive, and collegial profit examination for the I.C. Applied Botany and Land Monitoring consists of an oral test on the topics developed during the theoretical lecture hours of both modules of the integrated course. Only the successful completion of the oral test will result in the final examination grade, which will be expressed as the arithmetic mean of the oral tests of the two modules.</i></p> <p><i>For students who were successful in the written exemption test, the subject of the oral test will be only the topics taken in the period following the test itself. In this case, the evaluation of the profit examination is expressed as the average of the grade given in the exoneration and the grade given in the oral test.</i></p> <p><i>The profit examination of foreign students may be conducted in English.</i></p>
Further information	<i>The exemption test is valid until the close of the last examination session of that academic year. It is not mandatory and failure to pass the exemption test</i>



	does not affect the conduct of the final examination.