



General information	
Academic subject	Field trip 2° year
Degree course	Bachelor's degree L/32
Academic Year	2 year
European Credit Transfer and Accumulation System (ECTS)	1
Language	Italian
Academic calendar (starting and ending date)	June- October 2022
Attendance	

Professor/ Lecturer	
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Tutoring (time and day)	Tuesday 11-13

Syllabus	
Learning Objectives	Exploring the territory for its abiotic and biotic components
Course prerequisites	Petrography and Botany
Contents	<p>The field trip consists of two-day in a locality of petrographic and botanical interest.</p> <p>In alternate years, locations in the Gargano (Apulia) and locations in Calabria are visited.</p> <p>In the Apulian areas we cross the formations of scrub and garrigue and the hygrophilous formations of the "Fantine" with the plants of greater floristic interest.</p> <p>We visit the site of Punta delle Pietre Nere, where the students can observe the beach algae, plant communities alo-nitrophilous and psammophilous and clusters of madrepora loaf (<i>Cladocora caespitosa</i>). Moreover, we will observe the carbonate rocks of the Apula carbonate platform (Apricena limestone), the chalky evaporitic rocks, the black limestone and basaltic rocks of the Apulian Philonian geological uniqueness. We visit the monumental Holm Oak of Vico and the Umbra Forest, along the Falascone path to observe the main nemoral species of spermatophytes, mushrooms and lichen communities.</p> <p>In the Calabrian areas</p> <p>Jurassic oceanic crust rocks with alpine metamorphism in green schist facies (serpentinized basalts within an ophiolitic sequence) are observed. Quarry in silicate marbles (marbles consisting of large calcite crystals with typical polysynthetic geminations and silicates that have been partially or completely serpentinized), outcrops of altered kinzigites, orthogneisses, biotite augen gneisses, and microclitic-muscovite gneisses.</p> <p>Phyllites and their structural characters (microfolds and folds). Biotite foliated tonalites and microgranular mafic inclusions. Rocks affected by high-grade</p>



	<p>metamorphism (amphibolite-granulite facies): outcrops of kinzigite gneisses (Qtz + K-feld +Bt + Grt + Sil +/- Crd). Evidence of crustal anatexis: outcrops of migmatites with concordant and discordant leucosomes.</p> <p>Metagabbri quarry with porphyroblasts of garnet</p> <p>From a botanical point of view, there are strips of oak vegetation with a marked presence of <i>Ampelodesmos mauritanicus</i> and <i>Arundo pliniana</i>, woody environments with Cerro, Carpino nero, Alder napoletano, Chestnut, Holly, Citiso villosa, Erica arborea, bryological flora.</p> <p>Floristic observations (<i>Hypochoeris radicata</i>, <i>Jasione montana</i>, <i>Tolpis umbellata</i>, <i>Polygonum aviculare</i>); galls caused by the Chinese gall wasp (<i>Dryocosmus kuriphilus</i>) on Chestnut trees in the area.</p> <p>Observations on the halophytic flora of the littoral cliffs.</p> <p>Plant formations with <i>Quercus suber</i>, <i>Ampelodesmos mauritanica</i>, <i>Stipa bromoides</i>, <i>Erica arborea</i>, <i>Arbutus unedo</i>, <i>Teucrium flavum</i>, <i>Cistus incanus</i>, <i>Ptilostemon strictus</i></p> <p>Taxonomic observations of extensive colonies of crustose lichens on erratic boulders</p> <p>Beech forests with nuclei of silver fir and observations on mycological flora.</p>
Books and bibliography	teachers' notes
Additional materials	lecture notes.

Work schedule			
Total	Lectures	Hands on (Laboratory, working groups, seminars, field trips)	Out-of-class study hours/ Self-study hours
Hours			
25	2	18	5
ECTS			
1		1	
Teaching strategy		Discussions on petrographic, geologic, and botanical topics in areas of naturalistic interest	
Expected learning outcomes			
Knowledge and understanding on:		<ul style="list-style-type: none"> ○ Recognition of rocks and plants on the field for the purpose of proper classification. Achievement of this objective is promoted during field trips 	
Applying knowledge and understanding on:		<ul style="list-style-type: none"> ○ Ability to understand the geological environment in which different rock types are formed. ○ Recognition of macroscopic rock samples. ○ This ability is promoted through continuous talks during the activities on field. 	
Soft skills		<ul style="list-style-type: none"> • <i>Making informed judgments and choices</i> <ul style="list-style-type: none"> ○ The students acquire the scientific method in the study of environment. ○ Development of scientific procedures and judgements during the lectures. ○ Petrographic features of the rock types ○ Observation of hand samples • <i>Communicating knowledge and understanding</i> 	



	<ul style="list-style-type: none"> ○ Acquisition of the specific and technical language of Petrography and Botany ○ Ability to organize a scientific talk even with digital support. ● <i>Capacities to continue learning</i> <ul style="list-style-type: none"> ○ Ability to understand English scientific papers. The students develop the capacities to select the fundamental concepts of petrography and botany, make connections with other naturalistic disciplines. The capacities to continue learning is actuated during the laboratory activities.
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Assessment and feedback	
Methods of assessment	Written report on field activities
Evaluation criteria	<ul style="list-style-type: none"> ● <i>Knowledge and understanding</i> <ul style="list-style-type: none"> ○ The student must be able to recognise the main types of rocks and vegetation present in an area. Failure to recognise the biotic and abiotic characteristics of an area will result in failing the integrated examination. ● <i>Applying knowledge and understanding</i> <ul style="list-style-type: none"> ● The student must be able to process the data collected during the excursion in an appropriate manner. The level of knowledge achieved and the mastery of the classification criteria will be verified by means of a written report accompanied by images. ● <i>Autonomy of judgment</i> <ul style="list-style-type: none"> ○ The student must be able to establish the parameters to be taken into account in order to get to know a natural environment. The student's commitment will be assessed during the course of the excursion. The final evaluation will take place when the report is handed in. ○ <i>Communicating knowledge and understanding</i> <ul style="list-style-type: none"> ○ The student must be able to use appropriate scientific language in the biotic and abiotic fields, the use of specific language being a prerequisite for passing the examination. ○ <i>Communication skills</i> <ul style="list-style-type: none"> ○ The student must be able to use appropriate scientific language in the biotic and abiotic fields, the use of specific language being a prerequisite for passing the examination. ○ <i>Capacities to continue learning</i> <ul style="list-style-type: none"> ○ The student must be able to develop links with the disciplines of the course of study. The assessment of the student's preparation aims to establish the ability to reason and the acquisition of specific language.
Criteria for assessment and attribution of the final mark	The ability to link the acquired notions using appropriate scientific language and demonstrating reasoning skills is assessed as suitable. The assessment will be unsuitable if the student has copied the final report.
Additional information	