



General information	
Academic subject	Geology (I.C.)
Degree course	Natural Sciences
Academic Year	2021-2022
European Credit Transfer and Accumulation System (ECTS)	6
Language	Italian
Academic calendar (starting and ending date)	First semester of the third year
Attendance	Strongly recommended

Professor/ Lecturer	Lecturer (RTDB)
Name and Surname	Luigi Spalluto
E-mail	luigi.spalluto@uniba.it
Telephone	0805442587
Department and address	Earth Science building, Room n. 4, Second floor
Virtual headquarters	Microsoft teams - https://teams.microsoft.com/l/team/19%3addfb0d0582f84451bf6bee4bc928216c%40thread.tacv2/conversations?groupId=2c4b66ac-9265-4034-9074-036fd6dd08d0&tenantId=c6328dc3-afdf-40ce-846d-326ead86d49
Tutoring (time and day)	By mail or telephone appointment

Syllabus	
Learning Objectives	Knowledge of general and basic notions of geology
Course prerequisites	Fundamentals of Geography, Physical Geography, Mineralogy, Petrography
Contents	INTRODUCTION Rocks constituents. Lithogenetic cycle. Sedimentary rocks: origin and classification. STRATIGRAPHY Stratigraphy basic principles. Stratigraphic correlation methods. Stratigraphic unconformities and hiatuses. Chronostratigraphy. Geological time scale. Facies concepts. Walther's law. Sedimentary cycle. Transgressions and regressions. Relative sea-level changes. SEDIMENTARY ENVIRONMENTS AND PROCESSES Sedimentary processes and transport. Sedimentary structures. Continental environments: conoid; alluvial plain. Transitional environments: delta; beach; tidal plain. Marine environments: shelf; slope, basin. Carbonate system. EARTH EVOLUTION AND PLATE TECTONICS Earth interior. Paleomagnetism and ocean-floor spreading. Earthquakes and volcanoes. Plate tectonics. Plate margins and continental margins. ROCKS DEFORMATIONS AND GEOLOGICAL STRUCTURES Folds, Faults and Thrusts. REGIONAL TECTONICS Cratons. Orogenic belts. Main elements of Italian geological and geodynamical evolution.
Books and bibliography	CAPIRE LA TERRA - Press & Siever, edizione italiana di Lupia Palmieri e Parotto - Ed. Zanichelli ROCCE E SUCCESSIONI SEDIMENTARIE - Bosellini, Mutti e Ricci Lucchi. Utet. SEDIMENTOLOGIA Ambienti sedimentari e facies. Parte Iii - Ricci Lucchi -CLUEB Slides illustrated during the lectures. Reading of scientific papers. The selected books can be consulted at university libraries.
Additional materials	The slides will be proposed in Italian language. Articles in Italian and English.



Work schedule			
Total	Lectures	Hands on (Laboratory, working groups, seminars, field trips)	Out-of-class study hours/ Self-study hours
Hours			
150	48	0	102
ECTS			
	6		
Teaching strategy		<i>Power point presentations and didactical notes.</i>	
Expected learning outcomes			
Knowledge and understanding on:		<ul style="list-style-type: none"> ○ Students will be guided to learn plate tectonics different evidences and the hypotheses about the origin of their kinematics. They will learn the principles of stratigraphy and structural geology, the basics of sedimentology and the knowledge of sedimentary depositional environments. They will know the main elements of the southern Apennines orogenic system evolution. Such knowledge, useful for educational purposes, will be achieved through theoretical lectures. The level of achieved knowledge will be tested through classroom discussions focused on the lecture topics. 	
Applying knowledge and understanding on:		<ul style="list-style-type: none"> ○ Students will learn to read and interpret abiotic component of the landscape as the result of a long geological evolution (deep time). They will be able to collect geological data in the field and to share these competences for didactical purposes. Their abilities will be verified through classroom discussions. 	
Soft skills		<ul style="list-style-type: none"> • <i>Making informed judgments and choices</i> <ul style="list-style-type: none"> ○ Students will be able to recognize the environmental and geodynamical meaning of the southern Apennines orogenic system through the study of its geological features and evolution. To this purpose, several case studies will be analyzed during the lectures. • <i>Communicating knowledge and understanding</i> <ul style="list-style-type: none"> ○ Students will be able to clearly express the main geological fundamentals with scientific robustness. They will be trained to conduct lectures through simulations about different geological topics. Their skills will be tested during simulations. • <i>Capacities to continue learning</i> <ul style="list-style-type: none"> ○ Students will be able to link the fundamentals topics of geology to the ones acquired in other disciplines. Their skills will be verified through singular or collective questions during the lectures. 	
Assessment and feedback		<i>The exam of "Geology" course will be integrated with the one of "Laboratory of Geology".</i>	
Methods of assessment		<i>The exam will consist of an oral dissertation aimed at testing the knowledge of the geological topics and the ability to learn, integrate and connect them.</i>	
Evaluation criteria		<ul style="list-style-type: none"> • <i>Knowledge and understanding</i> <ul style="list-style-type: none"> ○ Students have to know geological fundamental topics: Earth formation and its dynamics (plate tectonics); main geological environments and processes; sedimentary dynamics and principles of stratigraphy; some elements of structural 	



	<p>and regional geology. The ability of understanding the lectures fundamental concepts will be a necessary condition for passing the exam (conditioned by integration with the "Laboratory of Geology" exam).</p> <ul style="list-style-type: none">• <i>Applying knowledge and understanding</i><ul style="list-style-type: none">○ Students should be able to describe the geological topics with language properties and have to demonstrate the ability to apply the acquired knowledge in real contexts. The acquisition of these skills will lead to a very positive evaluation (conditioned by integration with the "Laboratory of Geology" exam).• <i>Autonomy of judgment</i><ul style="list-style-type: none">○ Students should be able to develop connections with other disciplines of the degree course. This ability will lead to a very positive evaluation of the exam (conditioned by integration with the "Laboratory of Geology" exam).• <i>Communicating knowledge and understanding</i><ul style="list-style-type: none">○ students should be able to understand and transmit the main notions of geology at an informative level• <i>Communication skills</i><ul style="list-style-type: none">○ Students should be able to express concepts and to formulate interpretations with language properties using the scientific terminology learned during the course attendance. They should also be able to apply the acquired knowledge to educational contexts. These skills, as well as the knowledge of the geological vocabulary, could allow them to achieve the maximum mark (conditioned by integration with the "Laboratory of Geology" exam).• <i>Capacities to continue learning</i><ul style="list-style-type: none">○ Students have to demonstrate to be independently able for assessing knowledge on the basis of an interdisciplinary preparation. The demonstration of an acquired ability to broaden their knowledge with an autonomous learning path, will lead to an increase in the final grade up to the maximum (conditioned by integration with the "Laboratory of Geology" exam)
Criteria for assessment and attribution of the final mark	<p><i>The final grade will consider the exposition, the correct use of scientific language, and the ability to apply the acquired knowledge to educational contexts. It will be determined by comparison to the evaluation expressed for the course of "Laboratory of Geology" (which integrates the exam).</i></p> <p><i>The assiduous and active participation to the lectures will contribute to a very positive evaluation.</i></p>
Additional information	