
COURSE: Geology 1, mod. 2

ACADEMIC YEAR: 2017-2018

TYPE OF EDUCATIONAL ACTIVITY: Basic

TEACHER: Paolo Giannandrea

e-mail: paolo.giannandrea@unibas.it**website:** <http://scienze.unibas.it/site/home.html>

phone: 0971 206258**mobile (optional):** 338 5906841

Language: Italiano

ECTS: 6 (2 lessons e 4 tutorials/practice)**n. of hours:** 64 (16 lessons e 48 tutorials/practice)**Campus:** Potenza
Dept./School: Dipartimento di Scienze
Program: Geological Sciences (L34)**Semester:** Semester II
from 05/03/2018 **to** 15-30 june 2018

EDUCATIONAL GOALS AND EXPECTED LEARNING OUTCOMES

Educational goals: i) macroscopic classification of igneous, sedimentary and metamorphic rocks; ii) structuring and interpretation of geological maps; iii) The course also includes field work, which provides the basics for surface geological research.

Expected learning outcomes:

- classification of igneous, sedimentary, and metamorphic rocks;
 - reading of the geological maps;
 - identify the geological structures of the first order of Southern Italy.
-

PRE-REQUIREMENTS

SYLLABUS

Solid state: crystalline and amorphous; silicates; fractional crystallization: Bowen series. Igneous rocks: structure, size, color and mineral composition. Formation of sedimentary rocks: source area, transport, sedimentation, and lithification; classification of the sedimentary rocks; composition and structure of the terrigenous (conglomerate and breccias, sandstones, and mudstones) and carbonate rocks; evaporites; siliceous sediments; black shale. Metamorphic rocks: general characteristics; mode of formation; classification and structure. Geological setting of rock bodies formation. Structure and organization of the official geological maps of the National Geological Service at 1:100,000 and 1:50,000 scale: geological map area, cross-sections, legend, symbols, and contour schemes. Use of colors in the geological map. Stratigraphic criteria adopted in the new geological map of Italy at 1:50,000 scale.

TEACHING METHODS

Theoretical lessons, Classroom tutorials, and field tutorials.

EVALUATION METHODS

Intermediate verifications, Written examination, Oral examination.

TEXTBOOKS AND ON-LINE EDUCATIONAL MATERIAL

- Rocce e successioni sedimentarie di A. Bosellini, E. Mutti, F. Ricci Lucchi - UTET
 - Fotoatlante dei Minerali e rocce di Rupert Hochleitner - Zanichelli
 - Introduzione allo studio delle rocce carbonatiche di A. Bosellini - Italo Bovolenta Editore.
 - Lettura delle Carte geologiche di Brian Simpson; edizione italiana a cura di Gioacchino Cusimano e Pietro Di Stefano - Dario Flaccovio Editore.
 - Guides and Monographic scientific articles in Italian and English.
-

○

INTERACTION WITH STUDENTS

using three-way preferential: telephone, email and in person in the office hours.

EXAMINATION SESSIONS (FORECAST)¹

08/02/2018; 08/03/2018; 05/07/2018; 02/08/2018, 06/09/2018; 11/10/2018; 15/11/2018

SEMINARS BY EXTERNAL EXPERTS YES ☐ NO ☒

FURTHER INFORMATION

¹Subject to possible changes: check the web site of the Teacher or the Department/School for updates.