



## UNIVERSITÀ DI PISA APPLIED GEOLOGY

---

**NICOLA PERILLI**

Anno accademico

2016/17

CdS

CIVIL-ENVIRONMENTAL & BUILDING  
ENGINEERING

Codice

121DD

CFU

6

Moduli	Settore/i	Tipo	Ore	Docente/i
GEOLOGIA APPLICATA	GEO/02	LEZIONI	60	NICOLA PERILLI

### Learning outcomes

#### *Knowledge*

The students who successfully complete the course will be able to understand the topics of Hydraulics and Geotechnics, and as a professionals they will be able to better understand the geological context of the study/investigation area/s; therefore together with geologists they will be able to plan all the investigations useful to correctly plan the actions necessary for proper design of structures and civil infrastructure and/or of buildings, according to the laws.

#### *Assessment criteria of knowledge*

The student will be assessed for his/her ability to discuss the main course contents using the appropriate terminology, and his/her ability to read and correctly use all the information contained in geological maps.

- Final oral exam
- Final written exam

#### Further information:

To access to the final oral exam, the student should correctly fill more than 75% of 30 questions of the final written exam.

### Teaching methods

Delivery: face to face

Learning activities:

- attending lectures
- participation in seminar
- group work
- Laboratory work
- Practical

Attendance: Not mandatory

Teaching methods:

- Lectures
- Seminar
- laboratory
- Other

### Syllabus

The course is aimed to introduce the students to the main issues/problems of the Applied Geology related to the geotechnical and geomecanical features of Soils and Rocks, the Mass-Wasting processes, and the Hydrogeology. Therefore, the students are introduced to the main topics of Geology Plate Tectonics, Minerals and Rocks, Sediments and Sedimentary rocks, Sedimentary environments, Principles of stratigraphy and Elements of Tectonics, in order to decipher the geological and thematic mapping, and to understand (1) the causes of the mass movement and the effects of the mass wasting, (2) the Hydrologic cycle and the groundwater dynamics.

### Bibliography

GEOLOGIA APPLICATA 1. Il rilevamento geologico-tecnico L. Scesi, M. Papini, P. Gattinoni ... Editore: Casa Editrice Ambrosiana GEOLOGY TODAY : UNDERSTANDING OUR PLANET Barbara W. Murck and Brian Skinner Editore:: John Wiley & Sons, Inc. UNDERSTANDING EARTH Frank Press & Raymond Siever Editore: W.H.Freeman & Co Ltd; INTRODUZIONE ALLA GEOLOGIA Gaetano Giglia, Livio Trevisan Editore:Pacini Editore Cartographic materials: Geological map of Italy (Cartographic Project: 1:50.000)with the Geological notes

