



Università di Camerino  
Scienze e Tecnologie

# GEOENVIRONMENTAL RESOURCES AND RISKS

Università di Camerino  
**MASTER OF SCIENCE DEGREE (MSc.)**

**The course is entirely held in English**

**Class identification of the course**  
Laurea magistrale LM 74  
(Scienze e tecnologie geologiche)

**2 years**  
**Number of credits** 120 ECTS

**Location** Camerino, School of Science  
and Technology, Geology division  
via Gentile III da Varano  
62032 Camerino, Italy

**web site**  
[geologia.unicam.it](http://geologia.unicam.it)

*course coordinator and delegates*

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## **INTRODUCING THE MASTER**

The course provides knowledge and practical expertise in the field of Earth Sciences related to the natural resources and the environmental hazards, aiming to form a geologist able to operate in: *a)* the study, exploration, exploitation and sustainable use of georesources (water, hydrocarbons, geomaterials, geothermal energy, *b)* the study of geological hazards (monitoring, evaluation, mitigation management, prevention).

During the study period, the combination of theory, practice, fieldwork and laboratory activities, as well as the knowledge acquisition of experimental analytical methods and data statistical processing and modeling, will contribute to the cultural formation of the students. To specialize in the area of interest, 28 credits can be chosen to build up a personalized study plan, together with the thesis (30 credits) which requires a semester of independent experimental work.

Time is dedicated to the acquisition of interdisciplinary knowledge, especially useful in addressing also environmental issues (like groundwater pollution, disaster management or effects of climate change) and transversal competences and skills (use of advanced software and programming codes). Practical workshops carried out by geologists working in specific fields will help introducing the students to the professional world.

Stages in private companies, territorial agencies, national and international research labs and universities, as well as study periods abroad within the Erasmus+ framework in EU or extra-EU countries (for exams and/or thesis), are particularly encouraged and supported by university grants. Grants for excellent or low-income students are available, as well as part-time jobs.

Thanks to international agreements, the Master provides the possibility to spend a semester abroad to USA and Brazil universities, for thesis or courses, with acquisition of credits and valuable experience.

## **COURSE ORGANIZATION**

The course is entirely held in English, the thesis is written in English. The lessons will start in the first week of October, the timetable will be available at the end of September ([www.geologia.unicam.it](http://www.geologia.unicam.it)).

The academic year includes two semesters, divided in lessons periods (October to January; March to June) and exams periods (February and June-July-September). The participation to field and laboratory activities is obligatory. A personal computer is required for courses projects and thesis..

The course is certified  
under the AFAQ ISO 9001 quality system.



## Admittance conditions

A BSc degree confirming completion of the First Cycle Degree level in Geosciences, Geophysics, Environmental/natural sciences, Civil/Environmental Engineering with a suitable geology background is required. The students must also have a background in chemistry, mathematics and physics at university level.

The level of English language competence required is B2 (Independent user) of the CEFR.

Entrance tests and interviews will take place in the first week of lessons.

International students will be preliminary selected by evaluation of the CV following the rules reported in the UNICAM website (<http://international.unicam.it>) and must refer to the Italian Embassy's regulations in their residence country.

## Study plan

### 1st year

Environmental chemistry  
Groundwater resources and hydrological hazard  
Advanced field geology  
Geomaterials  
Petroleum geology  
Geostatistics  
English B2  
Elective courses and activities

### 2nd year

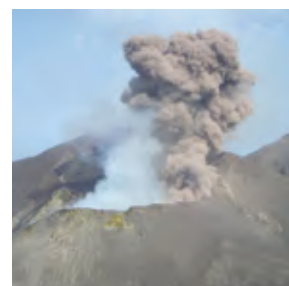
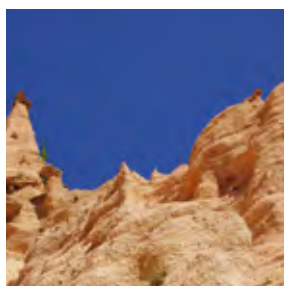
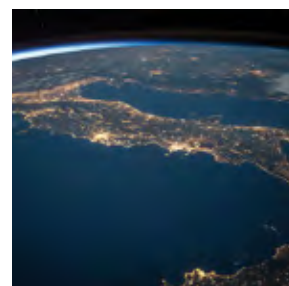
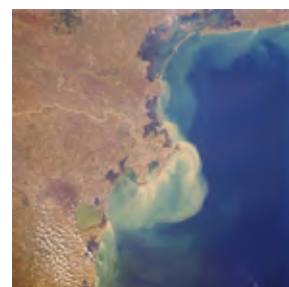
Seismic hazard  
Volcanic hazard  
Geophysical prospection  
Elective courses and activities  
  
Thesis

### Specialization areas:

Geodynamics and global tectonics  
Hydrogeological hazard and territory planning  
Experimental petrology and volcanology  
Geomaterials and geochemistry  
Water and energy resources  
Disaster management  
Geosciences for the Cultural Heritage

The list of elective courses and activities available is notified in the course website ([www.geologia.unicam.it](http://www.geologia.unicam.it)) at the beginning of each academic year (list not exhaustive and subject to change):

Structural geology, Geothermics, Coastal dynamics, Sedimentary petrology, Geofluids reservoirs, Plate tectonics, Seismology, Applied petrography, Geochemistry and petrology, Clastic facies models, Crystallography, Geology laboratory, Sedimentology and stratigraphy, Field geology, Geomaterials laboratory, Interpretation of seismic data, Geology laboratory, C programming, Fortran programming, Introduction to Autocad, Disaster management, GIS, Advanced GIS, Rock mechanics, Waste management, Green economy. Workshop and seminars are organized periodically in the various areas of interest of the course, also in collaboration with the Geologist Board (Ordine dei Geologi).



## INFORMATION FOR ADMISSIONS, COURSES AND OTHER SERVICES

at <http://international.unicam.it>

### Didactic Manager

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