

Why ENROLL?

Geosciences address many aspects affecting and impacting crucial problems of our modern society at different levels.

In fact, they allow to:

- studying aspects concerning the evolution of life and understanding the processes determining climate changes;
- exploring solutions concerning the development and sustainable management of natural resources and monitoring problems related to natural risks (volcanoes, earthquakes);
- exploring subsurface and marine resources contributing to find solutions within the energy transition in support of a sustainable society;
- providing all-round preparation for a wide range of employment opportunities in environmental, energy, and geo-engineering sectors;
- enhancing the interpersonal and transferable skills relevant to the geotechnologies and energy industry today: encourage working in multidisciplinary teams; and stimulating creative thinking and problem-solving ability;
- shaping future researcher who will explore the Earth and take part in future planetary explorations.

Coordinator

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Links

Polytechnic and Basic Sciences School

<http://www.scuolapsb.unina.it>

Department of Earth, Environment and Resources Sciences (DiSTAR)

<http://www.distar.unina.it>

Master of Science in Geosciences for the Environment, Resources and Natural Hazards

<http://www.distar.unina.it/it/laurea-magistrale-geoscienze>

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Opening times:

Tuesday, Wednesday and Thursday 9:00 a.m. to 12:00 a.m.

neapōlis



UNIVERSITÀ DEGLI STUDI DI NAPOLI FEDERICO II
SCUOLA POLITECNICA E DELLE SCIENZE DI BASE

SCIENCES

MASTER OF SCIENCE GEOSCIENCES FOR THE ENVIRONMENT, RESOURCES AND NATURAL HAZARDS



UNIVERSITÀ DEGLI STUDI DI NAPOLI FEDERICO II
SCUOLA POLITECNICA E DELLE SCIENZE DI BASE

2022|23

EDUCATIONAL TARGET

The two-years Master of Science program in Geosciences for the Environment, Resources and Natural Hazards aims to prepare students to perform a wide variety of technical functions in a multidisciplinary environment.

The program focuses at:

- providing a solid background in the main fields of the Earth Sciences;
- develops a global view of the issues concerning the management of the territory, the energy resources and the mitigation of the impact of climate changes;
- combining traditional and innovative geotechnologies to tackle environmental problems, issues related to natural risks, but also related to the energy transition;
- encourage working in multidisciplinary teams, and stimulating creative thinking and problem-solving ability.

The Master of Science program provide a quite unique combination of frontal lessons with field trips, laboratory trainings and traineeships across public and private companies but also research Institutes (i.e. INGV, ISMAR), along with internships in foreign Universities, mostly in the framework of Erasmus programs. The Master will benefit from research active, industry experienced academics and industry professionals contributing to the mentoring activities.



ENTRY REQUIREMENTS

The unconditional admission to the Master of Science in Geosciences for the Environment, Resources and Natural Hazards is allowed to the students who gained a bachelor's degree in Geology at University of Napoli Federico II and, in general, at any other Italian university. Entry requirements for foreigner applicants are pending upon revision of the Bachelor degree certificate showing your qualifications and a full transcript showing all the subjects you studied and the marks you have achieved in your degree(s).

TRAINING PATH

FIRST YEAR

4 Compulsory courses

Geology Applied to Civil Engineering Geophysical Tectonics	8
Magmatism and Tectonic Settings	8
Analysis and inversions of Geophysical Data	8

4 Curriculum courses

All the courses must be chosen from the following four sub-paths:

SUB-PATH 1

Economic Geology and Mineral Deposits	6
Magmatology	6
Building stones for industrial uses	6

SUB-PATH 2

Fault and fold analysis	6
Subsurface geology	6

SUB-PATH 3

Fault and fold analysis	6
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SUB-PATH 4

Photogeology and thematic mapping	6
Applied Geomorphology	6
GIS and Hydro-geomorphological hazard	6

SUB-PATH 5

Electromagnetic methods in geophysical exploration	6
Seismic exploration methods	6

SUB-PATH 6

Natural Hazards: quantification and predictability	6
Oceanography	6

SECOND YEAR

SUB-PATH 1

Technological and environmental applications of industrial minerals	6
Environmental geochemistry	6
Geochemical site characterization and risk analysis	6

SUB-PATH 2

Facies and basin analysis	6
Petroleum Geology and Geostorage	6

SUB-PATH 3

Facies and basin analysis	6
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SUB-PATH 4

Earthquake Geology	6
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SUB-PATH 5

Subsurface geology	6
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SUB-PATH 6

Coastal dynamics and management	6
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SUB-PATH 7

Slope stability	6
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SUB-PATH 8

Field geophysics	6
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SUB-PATH 9

Geological applications of gravity and magnetic methods	6
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SUB-PATH 10

Seismic Hazard	6
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SUB-PATH 11

Volcanic Hazard	6
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2 free-choice courses from a list available at www.distar.it (1 at first year)

3 free-choice courses from a list available at www.distar.it (1 at first year)

1 Internship at Companies and Research Institutions

1 Other activities (Internship at Companies /Team Project/Field activity/etc.)

English course

Degree thesis

JOB CAREER

Over the last few years, a large number of our MSc program in Geosciences for the Environment, Resources and Natural Hazards graduates have been employed in the energy and applied industries or gone straight on to funded PhD research. The dynamic nature of the programme provides all-round preparation for a wide-range of employment opportunities within a mobile, dynamic, wealth-creating industry. The student will have opportunities to find job placements in the following sectors: remote sensing and management of territorial information systems; environment and geo-resources management; analysis, prevention and mitigation of geological, hydrogeological and environmental risks; analysis, recovery and management of degraded sites and abandoned extraction sites; geognostic and geophysical surveys for exploration of the subsoil; geostorage; subsurface energy exploration; mining sector; geological studies applied to engineering and environmental hazard; retrieval, evaluation and management of water resources; geomaterials of industrial and commercial interest; analysis and management of pollution phenomena and consequent risks; evaluation and prevention of the degradation of cultural heritage; analysis and certification of geological materials.

POST-GRADUATE STUDY OPPORTUNITIES

Through an admission test, the graduate students in Geosciences for the Environment, Resources and Natural Risks can enter to PhD programs, second level specializing masters, specialization schools in the main fields of geosciences, offered by national and European academic and research institutions.

LOCATION

The courses are held at Monte Sant'Angelo Campus, Building 10 (Naples, Fuorigrotta area), where also the library and the student bureau are located. You can reach the campus by bus from the Campi Flegrei metro station (Line 2 Trenitalia), from Mostra station of Cumana railway and by several private buses from other towns in the neighborhoods of Naples.

