



UNIVERSITA' DEGLI STUDI DI MILANO
PROGRAMME DESCRIPTION - ACADEMIC YEAR 2025/26
MASTER DEGREE
EARTH SCIENCES (Classe LM-74 R)
Enrolled in the 2025-26 academic year

HEADING

Degree classification - Denomination and code:	LM-74 R
Degree title:	Dottore Magistrale
Curricula currently available:	ENVIRONMENTAL AND ENGINEERING GEOSCIENCES / EARTH PROCESSES AND RESOURCES
Length of course:	2 years
Credits required for admission:	180
Total number of credits required to complete programme:	120
Years of course currently available:	1st
Access procedures:	Open, subject to entry requirements
Course code:	FBL

PERSONS/ROLES

Head of Study Programme

Prof. Michele Zucali

Degree Course Coordinator

Prof. Michele Zucali

Tutors - Faculty

Tutors per l'orientamento: Dott.ssa Francesca Forni, Prof. Mattia Marini, Prof. Davide Zanoni, Prof. Stefano Poli, Prof. Francesco Cecinato, Prof.ssa Della Porta Giovanna

Tutors Tirocini: Prof. Riccardo Bersezio, Prof.ssa Tiziana Apuani, Prof. G. Diego Gatta

Tutors Piani di Studio: Prof. Corrado Camera, Prof. Paolo Lotti

Tutor Ammissione Laurea Magistrale: Prof. Michele Zucali, Prof. G. Diego Gatta, Prof. Massimo Tiepolo, Prof.ssa Paola Tartarotti, Prof. Gabriele Cambiotti, Prof. Fabrizio Felletti, Prof.ssa Maria Rose Petrizzo, Prof.ssa Tiziana Apuani, Prof. Fernando Cámara Artigas.

Degree Course website

<https://scienzeterra.cdl.unimi.it/it>

Contact person for Disability: Prof.ssa Maria Rose Petrizzo

Via Luigi Mangiagalli, 34 solo per appuntamento via mail Email: mrose.petrizzo@unimi.it

Director of the Departmental Library: Dr. Fabio Bottazzi

Via Luigi Mangiagalli, 34 piano terra solo per appuntamento via mail Email: fabio.bottazzi@unimi.it

Student Secretariats

Via Celoria, 18 Milano Phone 0250325032 solo su appuntamento attraverso InformaStudenti <https://www.unimi.it/it/studiare/servizi-gli-studenti/segreterie-informastudenti>

Teaching Office

Via Botticelli, 23 Milano piano terra solo su appuntamento attraverso InformaStudenti [https://informastudenti.unimi.it/saw/ess?](https://informastudenti.unimi.it/saw/ess?AUTH=SAML)
AUTH=SAML

EXPERIENCE OF STUDY ABROAD AS PART OF THE TRAINING PROGRAM

The University of Milan supports international mobility by providing its students with the opportunity to spend study and

internship periods abroad. It is a unique chance to enrich your educational path in a new exciting environment. The agreements entered into by the University with over 300 universities from the 27 EU member countries under the European Erasmus+ programme allow regularly enrolled students to carry out part of their studies at one of the partner universities or to undertake internships at companies, training and research centres and other organisations.

Similar international mobility opportunities are provided outside Europe, through agreements with a number of prestigious institutions.

The University of Milan is a member of the 4EU+ European University Alliance that brings together eight public multidisciplinary universities: University of Milan, Charles University of Prague, Heidelberg University, Paris-Panthéon-Assas University, Sorbonne University of Paris, University of Copenhagen, University of Geneva, and University of Warsaw. The 4EU+ Alliance offers integrated educational pathways and programmes to promote the international mobility of students (physical, blended and virtual).

How to participate in Erasmus mobility programs

How to participate in Erasmus+ mobility programmes

The students of the University of Milan can participate in mobility programmes, through a public selection procedure.

Ad hoc commissions will evaluate:

- Academic career
- the candidate's proposed study programme abroad
- his/her foreign language proficiency
- the reasons behind his/her application

Call for applications and informative meetings

The public selection for Erasmus+ mobility for study generally begins around February each year with the publication of a call for applications specifying destinations and requirements. Regarding the Erasmus+ Mobility for Traineeship, the University of Milan usually publishes two calls a year enabling students to choose a destination defined by an inter-institutional agreement or to find a traineeship position on their own.

The University organises informative meetings to illustrate mobility opportunities and rules for participation.

Erasmus+ scholarship

The European Union grants the winners of the Erasmus+ programme selection a scholarship to contribute to their mobility costs, which may be supplemented by the University funding for disadvantaged students.

Language courses

Students who pass the selections for mobility programmes can benefit from intensive foreign language courses offered each year by the University Language Centre (SLAM). <https://www.unimi.it/en/node/8/>

Learn more at <https://www.unimi.it/en/node/274/>

For assistance, please contact:

International Mobility Office

Via Santa Sofia 9 (second floor)

Tel. 02 503 13501-12589-13495-13502

Contacts: InformaStudenti;

Student Desk booking through InformaStudenti

<i>COURSE YEAR UNDEFINED Core/compulsory courses/activities common to all curricula</i>		
Learning activity	Ects	Sector
Other useful knowledge for entering the world of work	3	ND
Total compulsory credits	3	
<i>Further elective courses common to all curricula</i>		
<p>The student must acquire 12 ECTS by freely choosing from all the courses activated by the University as long as they are culturally consistent with his/her educational path and do not overlap, in content, with the fundamental and optional courses already used in the study plan.</p> <p>Therefore, all the courses present in this Study Manifesto that meet these criteria are included in the choice of 12 ECTS credits.</p>		
<i>End of course requirements common to all curricula</i>		
Final Examination	27	ND
Training	9	ND
Total compulsory credits	36	

ACTIVE CURRICULA LIST

ENVIRONMENTAL AND ENGINEERING GEOSCIENCES Course years currently available: 1st

EARTH PROCESSES AND RESOURCES Course years currently available: 1st

CURRICULUM: [FBL-A] ENVIRONMENTAL AND ENGINEERING GEOSCIENCES

1st COURSE YEAR Core/compulsory courses/activities Curriculum-specific features ENVIRONMENTAL AND ENGINEERING GEOSCIENCES		
Learning activity	Ects	Sector
Electrical, Electromagnetic and Gravimetric Methods for Environmental and Exploration	6	GEO/11
Environmental Contamination and Mitigation	9	(5) GEO/08, (4) GEO/09
Geotechnical, Hydrogeological and Geomorphological Survey	9	(3) GEO/04, (6) GEO/05
Soil Geology and Applications	9	(3) GEO/02, (3) GEO/03, (3) GEO/01
Total compulsory credits		33

Further elective courses Curriculum-specific features ENVIRONMENTAL AND ENGINEERING GEOSCIENCES

Students will have to choose 3 courses from the following list, maximum 2 per area, for a total of 18 CFU.
Scope 1 = GEO/01, GEO/02, GEO/03,
Scope 2 = GEO/04, GEO/05;
Scope 3 = GEO/06, GEO/07, GEO/08, GEO/09.

3D Structural Analysis: Methods and Applications	6	GEO/03
Applied Geomorphology	6	GEO/04
Geographic Information System (GIS)	6	GEO/05
Hydrogeology and Groundwater Assessment	6	GEO/05
Hydrostratigraphy	6	GEO/02
Marine Geology <i>course not active for the a.y. 2025-26.</i>	6	GEO/01
Rocks and Minerals: Properties and Characterization	6	(3) GEO/06, (3) GEO/07

Students will have to choose 3 courses, equal to 18 cfu from the following list:

Contamination and Remediation of Aquifers <i>course not active for the a.y. 2025-26.</i>	6	GEO/05
Geochemical Tracers and Applications <i>course not active for the a.y. 2025-26.</i>	6	GEO/08
Geophysics for Natural Hazards	6	GEO/12
Geotechnics	6	ICAR/07
Numerical Modeling for Geoengineering	6	GEO/05
Paleontology and Paleoenvironments	6	GEO/01
Regional Geology <i>course not active for the a.y. 2025-26.</i>	6	GEO/03
Remote Sensing and Spatial Analysis for Geohazards and <i>course not active for the a.y. 2025-26.</i>	6	(3) GEO/04, (3) GEO/05
Sedimentology and Applied Stratigraphy	6	GEO/02
Seismology	6	GEO/10
Slope Stability and Stabilization Methods	6	GEO/05
Stones and their analogues for Civil and Energy Engineering	6	GEO/07
Subsurface Sedimentary Systems for the Energy Transition	6	GEO/02

CURRICULUM: [FBL-B] EARTH PROCESSES AND RESOURCES

1st COURSE YEAR Core/compulsory courses/activities Curriculum-specific features EARTH PROCESSES AND RESOURCES		
Learning activity	Ects	Sector
Earth and Planetary Materials: from Nature to Experiments	9	(4) GEO/06, (5) GEO/07
Earth Surface Dynamics and Applied Geology	9	(5) GEO/04, (4) GEO/05
Geological Process and Field Geology	9	(3) GEO/02, (3) GEO/03, (3) GEO/01
Physics of the Earth's Interior	6	GEO/10
Total compulsory credits		33

Further elective courses Curriculum-specific features EARTH PROCESSES AND RESOURCES

Students will have to choose 3 courses from the following list, maximum 2 per area, for a total of 18 CFU.
Scope 1 = GEO/01, GEO/02, GEO/03,
Scope 2 = GEO/04, GEO/05;
Scope 3 = GEO/06, GEO/07, GEO/08, GEO/09.

Geodynamics <i>course not active for the a.y. 2025-26.</i>	6	GEO/03
Micropaleontology	6	GEO/01
Quaternary Landscapes and Human Landuse <i>course not active for the a.y. 2025-26.</i>	6	GEO/04
Raw Materials: from Prospection to Recycling	6	(3) GEO/08, (3) GEO/09

Rocks and Fluids: Analytical Methods and Data Management	6	(3) GEO/07, (3) GEO/08
Sedimentology	6	GEO/02
Technological Properties of Minerals, Cements and Ceramics	6	(3) GEO/06, (3) GEO/09
Students will have to choose 3 courses, equal to 18 cfu from the following list:		
Basement Geology and Microtectonics	6	GEO/03
Biostratigraphy and Biochronology <i>course not active for the a.y. 2025-26.</i>	6	GEO/01
Climate and Hydro-geological Hazard <i>course not active for the a.y. 2025-26.</i>	6	(3) GEO/04, (3) GEO/05
Crystal Chemistry and Crystallography <i>course not active for the a.y. 2025-26.</i>	6	GEO/06
Economic Geology and Sustainability	6	GEO/09
Experimental and Computational Modeling in Petrology	6	GEO/07
Geochemical Data Lab	6	GEO/08
Geophysical Fluid Dynamics	6	GEO/12
Metallogenesis-Ore Minerals	6	GEO/09
Physics and Chemistry of Minerals	6	GEO/06
Sedimentary Basins: Processes and Evolution	6	GEO/02
Sedimentary Rock Diagenesis and Environmental Record	6	GEO/02
Seismic and Wave Field Exploration	6	GEO/11
Stratigraphy and Paleogeography	6	GEO/02

COURSE PROGRESSION REQUIREMENTS

There are no preparatory courses between the teachings.