



MASTER (LM) DEGREE COURSE IN GEOFYSICS FOR NATURAL RISKS AND RESOURCES <i>Study programme for students enrolled in the academic year 2025-2026 - entirely held in English</i>	
1st YEAR	
MANDATORY UNITS	CREDITS
SOLID EARTH GEOPHYSICS	9
APPLIED GEOPHYSICS	6
MATHEMATICAL PHYSICS FOR THE EARTH SYSTEM	6
ELECTROMAGNETISM	6
DIGITAL DATA PROCESSING	6
1 UNIT TO CHOOSE AMONG THE FOLLOWING:	CREDITS
GEOLOGY FOR GEOPHYSICS	6
EARTHQUAKE GEOLOGY AND FAULT MECHANICS	6
1 UNIT TO CHOOSE AMONG THE FOLLOWING:	CREDITS
GEOPHYSICS FOR CULTURAL HERITAGE AND CIVIL ENGINEERING	6
APPLIED GEODESY	6
<u>PHYSICS OF THE ATMOSPHERE</u> ✓	6
PETROPHYSICS	6
1 UNIT TO CHOOSE AMONG THE FOLLOWING:	CREDITS
GEORESOURCES	6
STRUCTURE AND COMPOSITION OF THE DEEP EARTH	6
1 UNIT TO CHOOSE AMONG THE FOLLOWING:	CREDITS
APPLIED HYDROLOGY	6
GEOTECHNICS	6
PHYSICS DATA ANALYSIS	6
MANAGEMENT AND ANALYSIS OF PHYSICS DATASETS	6
STATISTICAL MECHANICS OF COMPLEX SYSTEMS	6
ADVANCED STATISTICS FOR PHYSICS ANALYSIS	6
NUMERICAL METHODS FOR CONTINUOUS SYSTEMS	6

NUMERICAL METHODS FOR HIGH PERFORMANCE COMPUTING	6
2nd YEAR	
MANDATORY UNIT	CREDITS
ENVIRONMENTAL AND ENGINEERING GEOPHYSICS	6
1 UNIT TO CHOOSE AMONG THE FOLLOWING:	CREDITS
GEO THERMICS	6
EXPLORATION SEISMOLOGY	6
PLANETARY DYNAMICS AND EVOLUTION	6
<u>CLIMATE VARIABILITY AND CHANGE</u> ✓	6
<u>WEATHER AND CLIMATE EXTREMES</u> ✓	6
NUMERICAL METHODS FOR GEOSCIENCES	6
1 UNIT TO CHOOSE AMONG THE FOLLOWING:	CREDITS
SEISMIC RESPONSE OF BUILT STRUCTURES	6
HIGH LEVEL PROGRAMMING	6
PROGRAMMABLE HARDWARE DEVICES	6
MACHINE LEARNING	6
NUMERICAL METHODS FOR DIFFERENTIAL EQUATIONS	6
<u>ADDITIONAL FREE-CHOICE CREDITS</u> ✓	12
<u>INTERNSHIP</u> ✓	3
<u>FINAL THESIS/DISSERTATION</u> ✓	30

ANY FURTHER NOTES

- Free-choice credits can be chosen among the university's educational offer as long as they are consistent with the educational path
- Attendance is mandatory according to the didactic regulation.