Teaching Plan 40°Cycle a.y. 2024/2025							
Course	Teacher(s)	SSD	hrs	credits	Educational form	Type of activity	Chosen/ Mandatory
Science: Observation and Prejudice	Eduardo Garzanti	GEO/02	8	1	Lecture	Intercurricular	Chosen activity
Communication of Climate Change	Claudia Pasquero	GEO/12	8	1	Lecture	Intercurricular	Chosen activity
The Climatic Role of Atmospheric Aerosol in the Arctic	Luca Ferrero	CHIM/12	8	1	Lecture	Intercurricular	Chosen activity
Ice Core Science	Barbara Delmonte	GEO/04	8	1	Lecture	Intercurricular	Chosen activity
Scanning and Transmission Electron Microscopy, Principles and Applications	Giancarlo Capitani, Paride Mantecca, Giovanni Maria Vanacore	GEO/06	28	3	Lecture & laboratory training	Intercurricular	Chosen activity
Raman Spectroscopy: A Flexible Tool for an Integrated Research Approach	Sergio Andò, Maria Luce Frezzotti + didattica seminariale	GEO/02	16	2	Lecture	Intercurricular	Chosen activity
Scanning Probe Microscopy: Principles, Applications, and Image Handling	Marcello Campione	FIS/01	12	1	Laboratory training	Intercurricular	Chosen activity
Sustainable Chemical Processing Technologies	Heiko Lange, Luca Zoia	CHIM/06	16	2	Lecture	Intercurricular	Chosen activity

New Lignin-Based Sustainable Materials: Science and Technological Aspects	Luca Zoia, Ruggero Barni	CHIM/06	8	1	Lecture	Intercurricular	Chosen activity
Critical Raw Materials and Their Environmental Impact	Alessandro Cavallo	GEO/09	16	2	Lecture	Intercurricular	Chosen activity
Isotopes as Environmental Tracers	Barbara Leoni, Marco Rotiroti	BIO/07	20	2	Lecture & laboratory training	Intercurricular	Chosen activity
Enhancement of Fragile Cultural Heritage	Ezio Bolzacchini, Chiara Rostagno, Luca Ferrero	CHIM/12	20	2	Lecture & laboratory training	Intercurricular	Chosen activity
Machine Learning for Multivariate Data Analysis	Davide Ballabio	CHIM/01	20	2	Lecture & laboratory training	Intercurricular	Chosen activity
Open-Source Software for Spatial Data Analysis	Micol Rossini	GEO/04	16	2	Lecture	Intercurricular	Chosen activity
Spatial Variability of Environmental Characteristics and Mapping Methodologies	Chiara Ferrè	AGR/14	16	2	Lecture	Intercurricular	Chosen activity
Time Series Analysis of Environmental Data	Tullia Bonomi + didattica seminariale	GEO/05	20	2	Lecture & laboratory training	Intercurricular	Chosen activity
Carbon and noble gases systematics in the Earth's interior	Andrea Luca Rizzo	GEO/08	8	1	Lecture	Intercurricular	Chosen activity
Advanced Techniques for Sample Preparation	Veronica Termopoli, Fabio Gosetti	CHIM/01	16	2	Lecture	Chemistry Curricular	Chosen activity

NMR spectroscopy applications to ligand-receptor studies	Cristina Airoldi	CHIM/06	20	2	Lecture & laboratory training	Chemistry Curricular	Chosen activity
NMR spectroscopy of molecular Inorganic and Organometallic Compounds	Roberto Della Pergola	CHIM/03	8	1	Lecture	Chemistry Curricular	Chosen activity
Advanced Theoretical Chemistry	Piercarlo Fantucci	CHIM/03	16	2	Lecture	Chemistry Curricular	Chosen activity
Crystallography and Laboratory of X-ray powder diffraction	Chiara Ferrara, Riccardo Ruffo	CHIM/03	20	2	Lecture & laboratory training	Chemistry Curricular	Chosen activity
Introduction to photochemistry	Luca Bertini, Claudio Greco, Antonio Papagni	CHIM/03	24	3	Lecture	Chemistry Curricular	Chosen activity
Computational approaches for Structure-Based Drug Design	Stefano Motta	CHIM/02	16	2	Lecture	Chemistry Curricular	Chosen activity
Detrital geochronology and thermochronology	Marco G. Malusà + didattica seminariale	GEO/02	16	2	Lecture	Geology Curricular	Chosen activity
Provenance analysis: how to integrate single grain and bulk techniques	Sergio Andò, Alberto Resentini	GEO/02	16	2	Lecture	Geology Curricular	Chosen activity

Earth's volatile cycle: the fluid and melt inclusion approach	Maria Luce Frezzotti, Rosario Esposito, Andrea Luca Rizzo	GEO/07	24	3	Lecture	Geology Curricular	Chosen activity
Monte Carlo Approach to Geophysical Inverse Problem: An Introduction	Nicola Piana Agostinetti	GEO/11	20	2	Lecture & Laboratry training	Geology Curricular	Chosen activity
Advanced Field and Remote- Sensed Characterization of Rock Fractures in Outcrops	Federico Agliardi, Andrea Bistacchi	GEO/05	18	2	Lecture & Laboratry training	Geology Curricular	Chosen activity
Introduction to geodynamic and landscape evolution numerical modeling	Pietro Sternai	GEO/03	20	2	Lecture, computer work	Geology Curricular	Chosen activity
UAV/ROV and Immersive Virtual Reality for Research in Earth Sciences	Fabio Luca Bonali, Luca Fallati	GEO/03	18	2	Lecture & Field activity	Geology Curricular	Chosen activity
Geoenergy and Geomechanics	Giovanni Battista Crosta, Riccardo Castellanza	GEO/05	16	2	Lecture	Geology Curricular	Chosen activity
Advanced Experimental Testing and Monitoring on Geomaterials	Giovanni Battista Crosta, Riccardo Castellanza	ICAR/07	20	2	Lecture & Laboratry training	Geology Curricular	Chosen activity
Geotechnical Modelling for Slope Stability and Underground Geostructures	Giovanni Battista Crosta, Riccardo Castellanza	ICAR/07	20	2	Lecture & Laboratry training	Geology Curricular	Chosen activity

Native Plant Assemblages to Restore Degraded Lands	Sandra Citterio, Rodolfo Gentili	BIO/01	8	1	Lecture	Environment Curricular	Chosen activity
Non-Animal Testing and Research: Ethical Issues and Scientific Applications	Chiara Urani	BIO/06	8	1	Lecture	Environment Curricular	Chosen activity
Ecological Baseline and Conservation Paleobiology	Daniela Basso, Valentina Bracchi	GEO/01	16	2	Lecture	Environment Curricular	Chosen activity
Next Generation Sequencing and Bioinformatic Tools for Ecological Studies	Andrea Franzetti, Isabella Gandolfi	BIO/19	20	2	Lecture & Laboratory training	Environment Curricular	Chosen activity
Advanced Human Ecology	Emilio Padoa-Schioppa	BIO/07	16	2	Lecture	Environment Curricular	Chosen activity
Ecosystem Services	Emilio Padoa-Schioppa + didattica seminariale	BIO/07	16	2	Lecture	Environment Curricular	Chosen activity
Acoustics Applied to the Environment: Soundscape as Environmental Quality Index	Giovanni Zambon	FIS/07	12	1	Laboratory training	Environment Curricular	Chosen activity
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