

Teaching Plan 42°Cycle a.y. 2026/2027

Course	Teacher(s)	SSD	hrs	credits	Educational form	Type of activity
Science: Observation and Prejudice	Eduardo Garzanti	GEO/02	8	1	Lecture	Intercurricular
Communication of Climate Change	Claudia Pasquero	GEO/12	8	1	Lecture	Intercurricular
The Climatic Role of Atmospheric Aerosol in the Arctic	Luca Ferrero	CHIM/12	8	1	Lecture	Intercurricular
Ice Core Science	Barbara Delmonte	GEO/04	8	1	Lecture	Intercurricular
Advanced Techniques for Sample Preparation	Veronica Termopoli	CHIM/01	16	2	Lecture	Intercurricular
Scanning and Transmission Electron Microscopy, Principles and Applications	Giancarlo Capitani, Paride Mantecca, Giovanni Maria Vanacore	GEO/06	28	3	Lecture & laboratory training	Intercurricular
Raman Spectroscopy: A Flexible Tool for an Integrated Research Approach	Sergio Andò, Maria Luce Frezzotti + didattica seminariale	GEO/02	16	2	Lecture	Intercurricular
Scanning Microscopy and Spectroscopy: Principles, Applications, Image Handling	Marcello Campione, Valerio Cerantola	FIS/01	20	2	Laboratory training	Intercurricular

Isotopes as Environmental Tracers	Barbara Leoni, Marco Rotiroti	BIO/07	20	2	Lecture & laboratory training	Intercurricular
Natural Capital, Ecosystem services and nature based solutions	Sandra Citterio	BIO/01	26	2	Lecture & laboratory training	Intercurricular
From Environmental monitoring to human health: effects on contaminants, tools and models	Chiara Urani	BIO/04	18	2	Lecture & laboratory training	Intercurricular
New Lignin-Based Sustainable Materials: Science and Technological Aspects	Luca Zoia, Ruggero Barni	CHIM/06	8	1	Lecture	Intercurricular
Ecological Baseline and Conservation Paleobiology	Daniela Basso, Valentina Bracchi	GEO/01	16	2	Lecture	Intercurricular
Carbon and noble gases systematics in the Earth's interior	Andrea Luca Rizzo	GEO/08	8	1	Lecture	Intercurricular
Machine Learning for Multivariate Data Analysis	Davide Ballabio	CHIM/01	20	2	Lecture & laboratory training	Intercurricular
Monte Carlo Approach to Scientific Data Analyses: An Introduction	Nicola Piana Agostinetti	GEO/11	20	2	Lecture & Laboratory training	Intercurricular
Open-Source Software for Spatial Data Analysis	Micol Rossini	GEO/04	16	2	Lecture	Intercurricular

Spatial Variability of Environmental Characteristics and Mapping Methodologies	Chiara Ferrè	AGR/14	16	2	Lecture	Intercurricular
Time Series Analysis of Environmental Data	Tullia Bonomi + didattica seminariale	GEO/05	20	2	Lecture & laboratory training	Intercurricular
UAV/ROV and Immersive Virtual Reality for Research in Earth Sciences	Fabio Luca Bonali, Luca Fallati	GEO/03	18	2	Lecture & Field activity	Intercurricular
Challenges and Tools in Chemical Sciences	Davide Ballabio	CHEM-01/A	8	1	Lecture	Chemistry Curricular
NMR spectroscopy applications to ligand-receptor studies	Cristina Airoidi	CHEM-05/A	20	2	Lecture & laboratory training	Chemistry Curricular
Introduction to photochemistry	Luca Bertini, Claudio Greco, Antonio Papagni	CHEM-02/A	24	3	Lecture	Chemistry Curricular
Enhancement of Fragile Cultural Heritage	Ezio Bolzacchini, Chiara Rostagno, Luca Ferrero	CHEM-01/B	20	2	Lecture & laboratory training	Chemistry Curricular
Challenges and Tools in Geological Sciences	Elisa Malinverno	GEO/02	8	1	Lecture	Geology Curricular
Advanced Numerical Modelling Towards Digital Twins for Geomaterials	Giovanni Battista Crosta, Riccardo Castellanza, Bianca Di Blasio	GEO/03	36	3	Lecture	Geology Curricular

Introduction to geodynamic and landscape evolution numerical modeling	Pietro Sternai	GEO/03	20	2	Lecture, computer work	Geology Curricular
Challenges and Tools in Environmental Sciences	Sara Villa	BIO/03	8	1	Lecture	Environment Curricular
TOT. 28			462	51		

Other Activities

Course	Type of activity	SSD	hrs	credits	Educational	
"Non Solo Ambiente ma Dialoghi di	Seminari didattici obbligatori		12		Seminar	
Giornata del Dottorato (PhD Day	Evento a cadenza annuale		8			