	Modulo	Data	Ore	Docente	Advanced dynamic simulation for risk assessment 15 ore (3 ECTS; ING-IND/26)
AREA ING-IND/26	1	07-feb	3	Antonioni	Dynamic risk assessment for process industry
	2	08-feb	3	Scarponi	Modeling of industrial equipment exposed to hydrocarbon fire
	3	09-feb	3	Scarponi	Modeling of fires in buildings
	4	10-feb	3	Scarponi	Modeling of the impact of wildfires on urban and industrial areas
	5	11-feb	3	Antonioni	Dynamic simulation and risk assessment: case studies
	Modulo	**Data**	**Ore**	**Docente**	**Engineering for green transition: methods and tools 15 ore (3 ECTS; ING-IND/25)**
AREA ING-IND/25	1	27-giu	3	Dal Pozzo	Life cycle thinking in system analysis
	2	28-giu	3	Dal Pozzo	Indicators for environmental sustainability
	3	29-giu	3	Dal Pozzo	Decarbonization of the energy and industrial systems
	4	30-giu	3	Tugnoli	Implementing sustainability in the design of new processes
	5	01-lug	3	Salzano	Innovative fuels for the sustainable energy production
	Modulo	**Data**	**Ore**	**Docente**	**Advanced non-linear modelling of reinforced concrete and masonry structures (prof Luca Pozza, M1 Diego Talledo, M2 Francesca Ferretti), 30 ore, 5 CFU**
AREA ICAR09	1	Lugliio	5	Talledo	Focus on modelling of Reinforced Concrete Structures with OpenSees: Theory: Advanced numerical models for RC structures. Introduction to OpenSees
	2	Lugliio	5	Talledo	Focus on modelling of Reinforced Concrete Structures with OpenSees: Practice: First use of OpenSees to model a RC building
	3	Lugliio	5	Talledo	Focus on modelling of Reinforced Concrete Structures with OpenSees: Practice: model RC buildings with different approaches
	4	Lugliio	5	Ferretti	Focus on modelling of Masonry Structures with Diana. Theory: Numerical modelling of masonry structures: mechanical behavior and modeling approaches
	5	Lugliio	5	Ferretti	Focus on modelling of Masonry Structures with Diana. Practice: Introduction to the use of Diana. Modeling of a simple masonry structure according to the macro-modelling approach
	6	Lugliio	5	Ferretti	Focus on modelling of Masonry Structures with Diana. Practice: Modeling masonry according to the micro-modelling approach, examples
	Modulo	**Data**	**Ore**	**Docente**	**GNSS for displacement monitoring of structures and territory (Luca Tavasci), 15 ore, 3 CFU**
AREA ICAR06	1	Aprile	2,5	Tavasci	Global and Local dinamic reference systems
	2	Aprile	2,5	Tavasci	GNSS positioning techniques
	3	Aprile	2,5	Tavasci	GNSS for real time applications
	4	Aprile	2,5	Tavasci	GNSS for long terms monitoring
	5	Aprile	2,5	Tavasci	GNSS applications
	6	Aprile	2,5	Tavasci	Time series analysis
	Modulo	**Data**	**Ore**	**Docente**	**Advance in spatial data handling and GIS (Ing. Alessandro Lambertini), 15 ore, 3 CFU**
AREA ICAR06	1	Marzo	2,5	Lambertini	Geographic Information System
	2	Marzo	2,5	Lambertini	Metadata and Open Data
	3	Marzo	2,5	Lambertini	Vector data processing and integration
	4	Marzo	2,5	Lambertini	Database and data formats
	5	Marzo	2,5	Lambertini	Raster data and imagery
	6	Marzo	2,5	Lambertini	Exercises and case study
	Modulo	**Data**	**Ore**	**Docente**	**Transport systems for urban sustainable mobility (prof. MN Postorino, C. Lantieri, F. Paganelli, P. Tataranni), 15 ore, 3 CFU**
AREA ICAR 04-05	1	Giugno	2,5	Postorino	Sustainable mobility: approaches and modelling
	2	Giugno	2,5	Paganelli	Shared mobility systems: fleet estimation and positioning
	3	Giugno	2,5	Paganelli	New trends and future perspectives in transport systems
	4	Giugno	2,5	Lantieri	Traffic calmming techniques
	5	Giugno	2,5	Tataranni	Cycling paths: materials and design
	6	Giugno	2,5	Tataranni	Environmental sustainability in urban area
	Modulo	**Data**	**Ore**	**Docente**	**Application of remote sensing and numerical modelling methods for rock mass characterization and slope stability analysis (Davide Donati), 15 ore, 3 CFU**
AREA GEO	1	Maggio	2,5		
	2	Maggio	2,5		
	3	Maggio	2,5		
	4	Maggio	2,5		
	5	Maggio	2,5		
	6	Maggio	2,5		