

Modules	CFU/E CTS	hours	University, country	Name	Surname	DATE	Time (UTC)
1: Soil survey and classification	8	48					
Brief recall of soil fundamentals (soil mineralogy, soil physics, soil chemistry)	1	6				FRIDAY 2/10/26	
Introduction of the course		1	<i>Univ. Tuscia, Italy</i>	Simone	Priori		9:00-10:00
Soil mineralogy		1.5	<i>Univ. Adiyaman, Turkey</i>	Erhan	Akca		10:00-11:30
Soil chemical parameters		1.5		Erhan	Akca		11:30-13:00
Soil physics		2	<i>Univ. Extremadura, Spain</i>	Manuel	Pulido		14:00-16:00
Soil survey methodology, pedogenetic factors and processes, pedofeatures and pedogenetic processes identification	1	6				SATURDAY 3/10/26	
Pedogenetic factors and processes, pedofeatures and pedogenetic processes identification		3	<i>CNR, Italy</i>	Edoardo A.C.	Costantini		9:00-12:00
Soil Survey methodology (profile description, etc.)		3	<i>Univ. Ljubljana, Slovenia</i>	Blaz	Repe		13:00-16:00
Landscape description (basis of geomorphology, geology, land use); soilscapes, relationship soil/landscape	1	6				FRIDAY 9/10/26	
Landscape Characterization and Environmental Setting		3	<i>Univ. Ljubljana, Slovenia</i>	Blaz	Repe		9:00-12:00
Soilscape: Soils and Landscape Interactions		3		Blaz	Repe		13:00-16:00
Soil geography, soil mapping	1	6				SATURDAY 10/10/26	
Soil geography: Patterns and Distribution		3	<i>Univ. Ljubljana, Slovenia</i>	Blaz	Repe		9:00-12:00
Soil Mapping: Principles and Applications		3		Blaz	Repe		13:00-16:00
Basis knowledge of soil laboratory analysis, options, limits and interpretation, analysis for particular type of soils (e.g. volcanic soils)	1	6				FRIDAY 16/10/26	
Basic knowledge of soil lab analysis		3	<i>Univ. Adiyaman, Turkey</i>	Gokhan	Buyuk		9:00-12:00
How to select the proper methods for soil physico-chemical analysis		3	<i>Univ. Tuscia, Italy</i>	Sara	Marinari		13:00-16:00
Bases of Soil taxonomy (USDA classification) + practice exercises	1	6				SATURDAY 17/10/26	
Fundamentals of Soil Taxonomy classification		3	<i>Univ. Adiyaman, Turkey</i>	Erhan	Akca		9:00-12:00
Practical exercises of ST profile classification		3		Erhan	Akca		13:00-16:00
WRB international classification + practice exercises	2	12				FRIDAY 23/10/26	
Fundamentals of WRB classification		3	<i>Univ. Ljubljana, Slovenia</i>	Blaz	Repe		9:00-12:00
Practical exercises of WRB profile classification		3		Blaz	Repe	13:00-16:00	
Practical exercises of WRB profile classification		3		Blaz	Repe	9:00-12:00	
Practical exercises of WRB profile classification		3		Blaz	Repe	13:00-16:00	
ADIYAMAN field excursion 1st day	1	8	Adiyaman, Turkey	Erhan Akca		MONDAY 2/11/26	9:00-17:00
ADIYAMAN field excursion 2nd day	1	8				TUESDAY 3/11/26	9:00-17:00
ADIYAMAN field excursion 3rd day	1	8				WEDNESDAY 4/11/26	9:00-17:00
ADIYAMAN field excursion 4th day	1	8				THURSDAY 5/11/26	9:00-17:00
TEST of Part 1: Soil survey and classification						In presence during Adiyaman stay	

2: Soil quality monitoring	7	42					
Soil functions, soil quality and soil health concepts, easy methods of evaluation (VSA)	1	6				FRIDAY 13/11/26	
Soil functions, soil quality and health concept		2	<i>Univ. Tuscia, Italy</i>	Cristina	Moscattelli		9:00-11:00
Indicators for soil quality, easy methods		2		Cristina	Moscattelli		11:00-13:00
Visual Soil Assessment - FAO		1		Sara	Marinari		14:00-15:00

Soil pollution (case study) Webinar		1	Univ. Bologna, Italy	Marcello	Di Bonito		15:00-16:00
Soil structure/hydrology (AWC, water retention curve, infiltration and permeability) + hydrological models	1	6				SATURDAY 14/11/26	
Soil physics		3	Univ. Extremadura, Spain	Manuel	Pulido		9:00-13:00
Soil hydrology and pedotransfer functions		3		Manuel	Pulido		14:00-16:00
Soil erosion (models, monitoring systems, etc.)+ practice exercise (es. USLE model - upgrade RUSLE)	2	12				FRIDAY 20/11/26	
Soil erosion concepts and monitoring systems		3	Univ. Extremadura, Spain	Manuel	Pulido		9:00-13:00
Soil erosion model (USLE-RUSLE), exercise		3		Manuel	Pulido		14:00-16:00
Exercise on soil erosion modelling		6		Manuel	Pulido	SATURDAY 21/11/26	9:00-16:00
Organic matter, turnover, biochemistry, GHGs emissions	2	12				FRIDAY 27/11/26	
Soil biogeochemical nutrient cycling monitoring		3	Univ. Tuscia, Italy	Sara	Marinari		9:00-12:00
GhG emission, climate change		3		Tommaso	Chiti		13:00-16:00
Modelling SOM (Roth-C, Century) and exercise		6	Univ. Adiyaman, Turkey	Suha	Berberoglu	SATURDAY 28/11/26	9:00-16:00
Soil biology indicators (QBSar, Biochemical indices)	1	6				FRIDAY 04/12/26	
QBSar (principles and objectives)		2	CREA, Italy	Lorenzo	D'Avino		9:00-11:00
Soil Biochemical indices (methodologies and opportunities)		2	Univ. Tuscia, Italy	Sara	Marinari		11:00-13:00
Microbiological indicators		2		Elena	Di Mattia		14:00-16:00
TEST of Part 2: Soil monitoring						SATURDAY 05/12/26	12:00-13:00
3: Technologies supported soil survey and monitoring	9	54					
Digital soil mapping principles	1	6				FRIDAY 11/12/26	
SCORPAN model, variables affecting soil		1	Univ. Tuscia, Italy	Simone	Priori		9:00-12:00
Learning SAGA-GIS for Digital Soil Mapping		3		Simone	Priori		13:00-16:00
Applied geostatistics for soil data	1	6				SATURDAY 12/12/26	
Principles of Geostatistics		3	Univ. Tuscia, Italy	Simone	Priori		9:00-12:00
Exercises on geostatistics with SAGA-GIS		3		Simone	Priori		13:00-16:00
Proximal soil sensing	2	12				FRIDAY 15/01/27	
Proximal sensors based on geophysics		3	Univ. Tuscia, Italy	Simone	Priori		9:00-12:00
Proximal sensors based on spectroscopy (gamma-ray and NIR)		3		Simone	Priori		13:00-16:00
Exercise on proximal sensing data with SAGA-GIS		6		Simone	Priori	SATURDAY 16/01/27	9:00-16:00
Remote sensing application for soil	2	12					
Principles of remote sensing for soil studies		3	Evenor-Tech, Spain	Javier	Bravo García	FRIDAY 22/01/27	9:00-12:00
Google Earth Engine Applications for soil		3		Javier	Bravo García		13:00-16:00
Principles of Machine Learning methods for soil science		3		Javier	Bravo García	SATURDAY 23/01/27	9:00-12:00
Exercise of Machine Learning methods		3		Javier	Bravo García		13:00-16:00
From soil data generation to DSM: a workflow in RStudio	1	6					
Principles of R-Studio for database and DSS modeling		3	Univ. Vallaloid, Spain	Jesus	Barrena	FRIDAY 29/01/27	9:00-12:00
Practical exercise with Rstudio		3		Jesus	Barrena		13:00-16:00
Soil database, FAIR concept	1	6					
FAIR Data Audit and Design in Soil Science		3	Evenor-Tech, Spain	Francisco	José Blanco Velasquez	FRIDAY 05/02/27	9:00-12:00
Creation of a Spatial Soil Database (exercise)		3		Francisco	José Blanco Velasquez		13:00-16:00
Decision Support System and models for soil	1	6					
Process based soil and crop modelling for soil monitoring and carbon farming: simulation of SOC dynamics, SOM fractions and MRV applications in Mediterranean agroecosystems		3	Univ. Milan, Italy	Marco	Acutis	SATURDAY 06/02/27	9:00-12:00

Practical exercises with ARMOSA DSS		3		Alessia	Perego		13:00-16:00
CACERES field excursion 1st day	1	8	Caceres, UEX, Spain	Manuel Pulido		MONDAY 8/02/27	9:00-17:00
CACERES field excursion 2nd day	1	8				TUESDAY 9/02/27	9:00-17:00
CACERES field excursion 3rd day	1	8				WEDNESDAY 10/02/27	9:00-17:00
CACERES field excursion 4th day	1	8				THURSDAY 11/02/27	9:00-17:00
TEST part 3 : Technology for soil						In presence during CACERES activities	

4: Applications of soil sciences	6	36					
Urban development planning	1	6				FRIDAY 19/02/27	
EU Laws on soil protection		2	<i>Univ. Extremadura, Spain</i>	Manuel	Pulido		9:00-12:00
Public works impact ex ante and ex post evaluation		2	<i>Timesis, Italy</i>	Fabrizio	Cassi		
Urban soils and development planning		2	<i>Univ. Adiyaman, Turkey</i>	Erhan	Akca		13:00-16:00
Land evaluation (various examples regarding nitrate leaching susceptibility, soil and viticulture, ecc.)	1	6				SATURDAY 20/02/27	
Land evaluation (Land capability classification, land suitability)		2	<i>Timesis, Italy</i>	Mauro	Piazzzi		9:00-11:00
Examples and exercises regarding land evaluation studies		2		Mauro	Piazzzi		11:00-13:00
Terroir concept for high quality crop		2	<i>Univ. Tuscias, Italy</i>	Simone	Priori		14:00-16:00
Soil conservation and recovering (conservative pedotechniques), erosion control	1	6				FRIDAY 26/02/27	
Water management and erosion control		2	<i>Univ. Adiyaman, Turkey</i>	Erhan	Akca		9:00-11:00
Pedotechniques		2		Erhan	Akca		11:00-13:00
Pedotechnology applied to soil regeneration		1	<i>MCM Ecosistemi, Italy</i>	Paolo	Manfredi		14:00-15:00
Pedotechnology: In-situ soil reconstruction		1		Paolo	Manfredi	15:00-16:00	
Social innovation and participatory processes + soil communication	1	6				SATURDAY 27/02/27	
Dissemination and Communication activities using digital tools		3	<i>Evenor-Tech, Spain</i>	Francisco	José Blanco Velasquez		9:00-12:00
Managing co-design and participatory processes		3	<i>Timesis, Italy</i>	Anna Chiara	Lorenzelli		13:00-16:00
Sustainable soil management, living labs	1	6				FRIDAY 05/03/27	
Sustainable soil management		3	<i>Evenor-Tech, Spain</i>	Francisco	José Blanco Velasquez		9:00-12:00
Designing a Living Lab Ecosystem for Mediterranean Soil Challenges		3	<i>Univ. Extremadura, Spain</i>	Manuel	Pulido		13:00-16:00
Soil Science for Carbon farming	1	6				SATURDAY 06/03/27	
The EU - CRCF regulations		3		Tommaso	Chiti		9:00-12:00
Soil Management Practices to increase SOC in forests and agricultural systems		3	<i>Univ. Tuscias, Italy</i>	Tommaso	Chiti		13:00-16:00
LJUBLJANA field excursion 1st day	1	8	Ljubljana Uni, Slovenia	Repe Blaz		MONDAY 5/04/27	9:00-17:00
LJUBLJANA field excursion 2nd day	1	8				TUESDAY 6/04/27	9:00-17:00
LJUBLJANA field excursion 3rd day	1	8				WEDNESDAY 7/04/27	9:00-17:00
LJUBLJANA field excursion 4th day	1	8				THURSDAY 8/04/27	9:00-17:00
TEST part 4: applications of soil sciences						In presence during LJUBLJANA activities	
INTERNSHIP	8	200					
Final thesis work	6	150					
VITERBO field excursion 1st day	1	8	Viterbo, Italy	Simone Priori, Sara Marinari, Tommaso Chiti		MONDAY 4/09/27	9:00-17:00
VITERBO field excursion 2nd day	1	8				TUESDAY 5/09/27	9:00-17:00
VITERBO field excursion 3rd day	1	8				WEDNESDAY 6/09/27	9:00-17:00

VITERBO field excursion 4th day	1	8			THURSDAY 7/09/27	9:00-17:00
Thesis dissertation (VITERBO)					08/09/2027	

ECTS Lectures and online exercise (Online)	30	180
ECTS exercise, field excursions (in person)	16	128
Internship (25 hours/ECTS)	8	200
Final thesis	6	150
Total ECTS	60	
Hours of active teaching (lectures, exercise, field excurs)		308