



Version 2022-08-28

Mv0215, Soils of the world and sustainable water and soil management – 2023

Course leader and teacher soils of the world: Erik Karlton

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Course home page: <https://student.slu.se/en/studies/courses-and-programmes/course-search/course/MV0215/10192.2122/Soils-of-the-world-and-sustainable-water-and-soil-management/>

Lecture rooms:

FG-lab, MVM building

C-lab2, MVM building

C-lab 3, MVM building

Biosfären, MVM-building

Zoom – links published in Canvas calendar

Activity:

* = exercise that is compulsory

L = lecture

Teacher codes:

EK: Erik Karlton

IW: Ingrid Wesström

JB: Jennie Barron

OA: Omran Alshihabi

TK: Tobias Klöffel

Time table:

Date	Time	Room		Content	Teachers
August-September					
Week 35					
Mo 28	13 ¹⁵ -14 ⁰⁰	FG-lab	*	Course introduction	EK, JB
	14 ¹⁵ -17 ⁰⁰	FG-lab	L	Land degradation and water security for food systems	EK, JB
Tu 29	10 ¹⁵ -12 ⁰⁰	FG-lab	L	Factors influencing soil formation	EK
	13 ¹⁵ -16 ⁰⁰	Zoom	L	Soil erosion processes	OA
We 30	09 ¹⁵ -12 ⁰⁰	FG-lab	L	Minerals and weathering, cation exchange and textural differentiation	EK
Th 31	8 ¹⁵ -10 ⁰⁰	FG-lab	E	Soil profile description, introduction	EK
	10 ³⁰ -17 ⁰⁰	Field	E	Soil profile description - field exercise; Outdoor - bring food and clothes for digging	EK
	18-			<i>Social get together with food</i>	
Fr 1	09 ¹⁵ -12 ⁰⁰	FG-lab	E	Soil classification: Diagnostic horizons	EK
	16			<i>Hand in soil profile description (electronic)</i>	

Date	Time	Room		Content	Teachers
Week 36					
Mo 4	8 ¹⁵ -12 ⁰⁰	FG-lab	E	Soil classification: Reference soil groups	EK
	13 ¹⁵ -15 ⁰⁰	FG-lab	L	Soils in temperate climate, soils strongly conditioned by parent material	EK
Tu 5	08 ¹⁵ -10 ⁰⁰	FG-lab	L	Soils in tropical climate, manmade soils, polar soils	EK
	10 ¹⁵ -12 ⁰⁰	FG-lab	L	Soils in dry climates, soils conditioned by topography	EK
We 6	08 ¹⁵ -12 ⁰⁰	FG-lab	E	Soil classification: Reference soil groups, introduction to subunits	EK
Th 7	09 ¹⁵ -12 ⁰⁰	C-lab 3 MVM	L	Soil and water designs and rainwater harvesting	OA
	13 ¹⁵ -16 ⁰⁰	C-lab 3 MVM	E	Assignment 1. Soil and water design.	OA
Fri 8	10 ¹⁵ -12 ⁰⁰	C-lab 2 MVM	E	Assignment 2: Small reservoirs/tanks	OA
	13 ¹⁵ -16 ⁰⁰	C-lab 2 MVM		Own work assignment 1 and 2	
	16			<i>Hand in Assignment 1 and 2 (electronic)</i>	
Week 37					
Mo 11	08 ¹⁵ -17	Ultuna	E	Excursion I soils	EK,JB, TK
Tu 12	08 ¹⁵ -18	Bus	E	Excursion II soils	EK,TK
Th 14	08 ¹⁵ -10 ⁰⁰	FG-lab	L	Levelling and positioning	TK, JB
	10 ³⁰ -17 ⁰⁰		E	Field survey. Levelling and positioning: Outdoor exercise; bring food and clothes for outdoors activities	TK, JB
Fr 15	9 ¹⁵ -12 ⁰⁰	FG-lab	E	Introduction: Soil Map of the World, maps and catenas	EK
	13 ¹⁵ -17 ⁰⁰	FG-lab	E	Soil Map of the World, maps and catenas	EK
Mo 18	09 ¹⁵ -12 ⁰⁰	FG-lab	E	Soil Map of the World, maps and catenas	EK
Tu 19	13 ¹⁵ -17 ⁰⁰	Bio- sfären	E	Soil Map of the World, maps and catenas, oral presentation	
We 20	09 ¹⁵ -12 ⁰⁰	FG-lab	L	Hydromechanics, flow principles in channels and pipes	OA
	13 ¹⁵ -16 ⁰⁰	FG-lab	E	Assignment 3. Hydromechanics.	OA
Th 21	13 ¹⁵ -16 ⁰⁰	Bio- sfären	L	Land drainage principles and methods	IW
Week 39					
Tu 26	13 ⁰⁰ -16 ⁰⁰	TBD		Examination: Soils of the world	
We 27	09 ¹⁵ -12 ⁰⁰	Bio- sfären	L	Subsurface drainage	IW
	13 ¹⁵ -14 ⁰⁰	FG-lab		Introduction assignment 4.	JB
	16			<i>Hand in Assignment 3 (electronic)</i>	
Th 28	14 ¹⁵ -16 ⁰⁰	Bio- sfären	L	Irrigation techniques and design	JB

Date	Time	Room		Content	Teachers
Fr 29	8 ¹⁵ -16 ⁰⁰	C-lab3	E	Assignment 4: Estimating crop water requirement	JB
	16			<i>Hand in Assignment 4 (electronic)</i>	
October					
Week 40					
Mo 2	10 ¹⁵ -12 ⁰⁰	FG-lab	E	Assignment 5. Irrigation techniques and design.	TK
	13 ¹⁵ -15 ⁰⁰	FG-lab		Seminar: Social and economic aspects of soil and water scaling for smallholder farmers.	JB
	15 ¹⁵ -16 ⁰⁰	FG-lab		Questioning time before land & water mgmt. exam	JB
Tu 3	16			<i>Hand in Assignment 5 (electronic)</i>	
Fr 6	08 ⁰⁰ -11 ⁰⁰	TBD		Examination: Sustainable water and soil management	JB
Week 41					
Mo 9	10 ¹⁵ -12 ⁰⁰	Biosfären	E	Project work introduction: Interventions to improve sustainability and productivity...	JB
	13-16			<i>Project work</i>	
Tu 10	9 ¹⁵ -16 ⁰⁰	TBD		Consultations for project	JB
We 11	9-16			<i>Project work</i>	
Th 12	9-16			<i>Project work</i>	
Fr 13	9-16			<i>Project work: hand in part 1 at 1600 hrs</i>	
Week 42					
Mo 16	9-16			<i>Project work</i>	
Tu 17	9-12			<i>Project work</i>	
	13-16			<i>Project work</i> Consultation for project part 2	JB
We 18	9-16			<i>Project work</i>	
Th 19	9-16			<i>Project work</i>	
Fr 20	9-16			<i>Project work, Project part 1 &2 report submission 16⁰⁰</i>	JB
Week 43					
Mo 23	9-16			<i>Project work, preparation for presentation and opposition</i>	
Tu 24	13-16			<i>Project work</i> preparation for presentation and opposition	
We 25	10 ¹⁵ -12 ⁰⁰	Bio-sfären		Final presentation of project work part 1&2	JB, EK
Th 26	10 ¹⁵ -12 ⁰⁰	Bio-sfären		Final presentation of project work part 1&2	JB, EK
	13 ¹⁵ -15 ⁰⁰	Bio-sfären		Course evaluation	JB, EK
November					
Th 2		TBD		Re-examination soils of the world	
Fr 11		TBD		Re-examination sustainable water and soil management	
June 2022					
		TBD		Re-examination both soils and water	