



Version 2021-08-23

Mv0215, Soils of the world and sustainable water and soil management– 2021

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

Computer lab 2, MVM-building

Biosfären, MVM-building

Activity:

* = exercise that is compulsory

L = lecture

Teacher codes:

EK: Erik Karlton

IW: Ingrid Wesström

JB: Jennie Barron

OA: Omran Alshihabi

LM: Louise Malmquist

TK: Tobias Klöffel

Time table:

Date	Time	Room		Content	Teachers
August-September					
Week 35					
Mo 30	13 ¹⁵ -14 ⁰⁰	Zoom	*	Course introduction	EK, JB
	14 ¹⁵ -17 ⁰⁰	Zoom	L	Land degradation and water security for food systems	EK JB
Tu 31	10 ¹⁵ -12 ⁰⁰	Zoom	L	Factors influencing soil formation	EK
	13 ¹⁵ -16 ⁰⁰	Zoom	L	Soil erosion processes	OA
We 1	09 ¹⁵ -12 ⁰⁰	Zoom	L	Minerals and weathering, cation exchange and textural differentiation	EK
Th 2	8 ¹⁵ -10 ⁰⁰	FG-lab	*	Soil profile description, introduction	EK
	10 ³⁰ -17 ⁰⁰	Field	*	Soil profile description - field exercise; Outdoor - bring food and clothes for digging	EK
Fr 3	09 ¹⁵ -12 ⁰⁰	Zoom	L	Soil and water designs and rainwater harvesting	OA
	13 ¹⁵ -16 ⁰⁰	Computer	*	Assignment 1. Soil and water design.	OA

Date	Time	Room		Content	Teachers
		lab 2, MVM			
	16		*	<i>Hand in soil profile description (electronic)</i>	
Week 36					
Mo 6	09 ¹⁵ -12	FG-lab	*	Soil classification: Diagnostic horizons	EK
Tu 7	8 ¹⁵ -12	FG-lab	*	Soil classification: Reference soil groups	EK
	13 ¹⁵ -15	Zoom	L	Soils in temperate climate, soils strongly conditioned by parent material	EK
We 8	10 ¹⁵ -12	Computer lab 2, MVM	*	Assignment 2: small reservoirs/tanks	OA
	16		*	<i>Hand in assignment 1 and 2 (electronic)</i>	
Th 9	08 ¹⁵ -10	Zoom	L	Soils in tropical climate, manmade soils, polar soils	EK
	10 ¹⁵ -12	Zoom	L	Soils in dry climates, soils conditioned by topography	EK
Fr 10	08 ¹⁵ -12	FG-lab	*	Soil classification: Reference soil groups, introduction to subunits	EK
Week 37					
Mo 13	08 ¹⁵ -17	Ultuna	*	Excursion I soils	EK, JB
Tu 14	08 ¹⁵ -18	Bus	*	Excursion II soils	EK, TK
We 15	10 ¹⁵ -12	FG-lab	L	Levelling and positioning	LM, TK
Th 16	9 ¹⁵ -12 ⁰⁰	Field	*	Field survey. Levelling and positioning: Outdoor exercise; bring food and clothes for outdoors activities	LM, TK
	13 ¹⁵ -15	Field	*	Field survey. Levelling and positioning Outdoor exercise; bring food and clothes for outdoors activities	LM, TK
Fr 17	9 ¹⁵ -12 ⁰⁰	Biosfären	*	Introduction: Soil Map of the World, maps and catenas	EK
	13 ¹⁵ -17	Biosfären	*	Soil Map of the World, maps and catenas	EK
Week 38					
Mo 20	09 ¹⁵ -17	Biosfären	*	Soil Map of the World, maps and catenas	EK
Tu 21	13 ¹⁵ -17	Biosfären	*	Soil Map of the World, maps and catenas, oral presentation	
We 22	09 ¹⁵ -12 ⁰⁰	Zoom	L	Hydromechanics, flow principles in channels and pipes	OA
Fr 24	09 ¹⁵ -10	Zoom		Opportunities for questions before Soils of the world exam	EK
Week 39					
Mo 27	8 ⁰⁰ – 11 ⁰⁰	Loftets bankettsal/Framtiden		Examination: Soils of the world	
Tu 28	9 ¹⁵ -12 ⁰⁰	FG-lab		Assignment 3. Hydromechanics.	OA

Date	Time	Room		Content	Teachers
	13 ¹⁵ -16 ⁰⁰	Zoom	L	Land drainage principles and methods	IW
We 29	09 ¹⁵ -12	Zoom	L	Subsurface drainage	IW
	16 ⁰⁰			<i>Hand in Assignment 3 (electronic)</i>	
Th 30	8 ¹⁵ -15	Computer lab 2, MVM	*	Assignment 4: Estimating crop water requirement	LM,JB
October					
Fr 1	10 ¹⁵ - 12	Zoom	L	Irrigation techniques and design	JB
Fr 1	16			<i>Hand in Assignment 4 (electronic)</i>	
Week 40					
Mo 4	9 ¹⁵ -11 ⁰⁰	Biosfären	*	Assignment 5. Irrigation techniques and design.	TK
	13 ¹⁵ -15	Zoom		Two cases of irrigation systems : (USA: largescale schemes and Sub Sahara Africa: small holder farmers)	JB with guest lecturers
Tu 5	16		*	<i>Hand in Assignment 5 (electronic)</i>	
Th 7	11 ¹⁵ -12 ⁰⁰	Zoom		Questioning time before land & water mgmt. exam	JB
Fr 8	8 ⁰⁰ -11 ⁰⁰	Särimer		Examination: Sustainable water and soil management	JB
Week 41					
Mo 11	10 ¹⁵ -12	Zoom	*	Project work introduction: Interventions to improve sustainability and productivity...	JB
	13-16			<i>Project work</i>	
Tu 12	9 ¹⁵ -16 ⁰⁰	Zoom		CONSULTATIONS for project	JB
We 13	9-16			<i>Project work</i>	
Th 14	9-16			<i>Project work</i>	
Fr 15	9-16		*	<i>Project work: hand in part 1 at 1600 hrs</i>	
Week 42					
Mo 18	9-16			<i>Project work</i>	
Tu 19	9-12			<i>Project work</i>	
	13-16	Zoom	*	<i>Project work</i> Consultation for project part 2	JB
We 20	9-16			<i>Project work</i>	
Th 21	9-16			<i>Project work</i>	
Fr 22	9-16			<i>Project work, Project part 1 &2 report submission 16⁰⁰</i>	JB
Week 43					
Mo 25	9-16			<i>Project work, preparation for presentation and opposition</i>	
Tu 26	13-16			<i>Project work preparation for presentation and opposition</i>	
We 27	10-12	Biosfären	*	Final presentation of project work part 1&2	JB, EK

Date	Time	Room		Content	Teachers
Th 28	10-12	Biosfären	*	Final presentation of project work part 1&2	JB, EK
	13 ¹⁵ -15	Biosfären	*	Course evaluation	JB, EK
November					
Th 4		TBD		Re-examination soils of the world	
Fr 5		TBD		Re-examination sustainable water and soil management	
June 2022		TBD		Re-examination both soils and water	