

Soil biology and biogeochemical cycles, 15 credits VT2022, BI1322

Course coordinators:

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* Activities marked with a star are mandatory.

Time slots in blue italics are suggested activities for these times. Meetings with project group members and supervisors will be planned within these blue time slots and/or after agreement. Please note that this schedule may be subject to changes before and during the course. Remember to check for schedule changes regularly on the course websites SLUNIK and Canvas.

Week #	Date	Time	Room	Type	Subject	Book	Teacher
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Mon	17-Jan	10.15- 12.00	Zoom	Lecture	Introduction to the course		Karina Clemmensen
		13.15-17.00	Zoom	Lecture	Biogeochemical element cycles	<i>S11,12,13</i>	Jon-Petter Gustafsson
Tue	18-Jan	9.15- 11.00	Zoom	Lecture	Isotopes in biogeochemistry	<i>S11,12,13</i>	Jon-Petter Gustafsson
		11.15-12.00	Zoom	Seminar	Introduction lab practicals*		Karina Clemmensen
		13.15-15.00	Zoom	Seminar	Introduction to project work*		Björn Lindahl
		<i>15.00-17.00</i>			<i>project work / selfstudy</i>		
Wed	19-Jan	9.15-12.00	Böl 1+2	Practical 1.1	Practical work sample preparation*		Karina Clemmensen, Carles Castaño
		<i>13.00-17.00</i>			<i>project work / selfstudy/ academic writing 1</i>		
Thu	20-Jan	<i>9.00 -17.00</i>			<i>project work / selfstudy</i>		
Fri	21-Jan	9.15-11.00	Zoom	Lecture	Greenhouse gasses and climate change	<i>S11,12,13</i>	Katharina Meurer
		12.00-17.00	Postponed!	Excursion	Norunda		Björn Lindahl
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Mon	24-Jan	9.15-11.00	Zoom	Lecture	SOM stabilization	<i>P12,13</i>	Katharina Meurer
		<i>11.00-17.00</i>			<i>project work / selfstudy</i>		
Tue	25-Jan	8.15-12.00	Böl 1+2	Practical 1.2	Practical work greenhouse gasses*		Lukas Hallberg, Carles Castaño, Karina Clemmensen
		13.15-15.00	Zoom	Exercise	Interactions of the C, N, P and S cycles	<i>S11,12</i>	Marie Spohn
		18.00			<u>Deadline exercise obs&exp approaches</u>		
Wed	26-Jan	<i>9.00 -17.00</i>			<i>project work / selfstudy</i>		
		17.00			<u>Deadline project working plan*</u>		
Thu	27-Jan	<i>9.00-13.15</i>			<i>project work / selfstudy</i>		
		13.15-17.00	Zoom	Exercise	Observational and experimental approaches	<i>S12,13</i>	Marie Spohn
Fri	28-Jan	9.15-13.00	Böl 1+2	Practical 1.3	Practical work greenhouse gasses*		Lukas Hallberg, Carles Castaño
		<i>13.00-17.00</i>			<i>project work / selfstudy</i>		

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Mon	31-Jan	9.00-10.15 10.15-12.00 13.15-15.00 15.00-17.00 17.00	Zoom Zoom	Lecture Exercise	<i>project work / selfstudy</i> Metabolism Metabolism exercise <i>project work / selfstudy</i> <u>Deadline peer review project working plan*</u>	P9	Chris Jones Chris Jones
Tue	1-Feb	9.15-13.00 13.00 - 17.00	Zoom	Practical 1.4	Data analyses greenhouse gasses* <i>project work / selfstudy</i>		Lukas Hallberg, Carles Castaño, Karina Clemmensen
Wed	2-Feb	9.15-12.00 12.00-17.00 17.00	Zoom	Lecture	The Bacteria and Archaea <i>project work / selfstudy</i> <u>Deadline revised working plan*</u>	P3	Sara Hallin
Thu	3-Feb	9.15-12.00 12.00-17.00	Zoom	Lecture	The Fungi <i>project work / selfstudy</i>	P4	Björn Lindahl
Fri	4-Feb	9.15-11.00 11.00-17.00	Zoom	Lecture	Fungal ecology <i>project work / selfstudy</i>	P4	Björn Lindahl

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Mon	7-Feb	9.15-12.00 13.15-17.30 17.30	Zoom Böl 1+2	Lecture Practical 2.1	Molecular community analyses Practical work molecular methods* <u>Deadline lab report 1*</u>	P6,7	Karina Clemmensen Louis Mielke, Laura Müller
Tue	8-Feb	9.15-17.00	Böl 1+2	Practical 2.2	Practical work molecular methods*		Louis Mielke, Laura Müller
Wed	9-Feb	9.15-12.30 12.30-17.00	Zoom	Practical 2.3	Data analyses molecular methods* <i>project work / selfstudy</i>		Louis Mielke, Laura Müller
Thu	10-Feb	9.00-17.00			<i>project work / selfstudy</i>		
Fri	11-Feb	9.00-10.15 10.15-12.00 13.15-15.00 15.00-17.00	Sal T Sal T	Lecture Exercise	Ecological concepts Ecological concepts exercise <i>project work / selfstudy/academic writing 2</i>	P10	Karina Clemmensen Karina Clemmensen

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Mon	14-Feb	9.15-12.00 12.00-17.00 17.00	Sal T	Lecture	The soil fauna <i>project work / selfstudy</i> <u>Deadline lab report 2*</u>	P5	Maria Viketoft
Tue	15-Feb	9.15-12.00 12.00-17.00	Ratatosk	Lecture	Soil architecture and structure formation <i>project work / selfstudy</i>	P2	Elsa Arrazola Vasquez
Wed	16-Feb	9.15-12.00 12.00-17.00	Sal T	Lecture	Trophic interactions <i>project work / selfstudy</i>	P10,B2	Kaisa Torppa
Thu	17-Feb	9.15-12.00 12.00-17.00	Sal T	Lecture	Decomposition <i>project work / selfstudy</i>	P12,13	Björn Lindahl
Fri	18-Feb	9.15-11.00 11.00-17.00	Ratatosk	Lecture	Mycorrhiza <i>project work / selfstudy/academic writing 3</i>	P11	Björn Lindahl

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Mon	21-Feb	9.15-11.00 <i>11.00-17.00</i>	Sal T	Lecture	Rhizosphere biology <i>project work / selfstudy</i>	<i>P11</i>	Aurelien Saghai
Tue	22-Feb	9.15-11.00 <i>11.00 -17.00</i>	Böl 2	Practical	Microscopy mycorrhiza <i>project work / selfstudy</i>		Louis Mielke, Tarquin Netherway
Thu	24-Feb	<i>9.00-12.00</i> <i>12.00-17.00</i>			<i>Supervisor feedback on oral presentation/project work</i> <i>project work / selfstudy</i>		<i>proj. supervisors</i>
Fri	25-Feb	9.15 - 12.00 <i>12.00-17.00</i>	Zoom	Exercise	Group assignment discussing human impacts <i>project work / selfstudy</i>	<i>P18</i>	Katharina Meurer

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Mon	28-Feb	<i>9.00-17.00</i>			<i>project work / selfstudy</i>		
Tue	1-Mar	9.15-17.00	Böl 1+2	Practical 3.1	Practicals C and N cycling*		Karolina Jörgensen, Erica Packard
Wed	2-Mar	9.15-12.00 <i>12.00-17.00</i>	Böl 1+2	Practical 3.2	Practicals C and N cycling* <i>project work / selfstudy</i>		Karolina Jörgensen, Erica Packard
Thu	3-Mar	9.15 - 12.00 13.15-17.00	Sal Z Zoom	Lecture Practical 3.3	Mineralization Data analysis C and N cycling*		Björn Lindahl Karolina Jörgensen, Erica Packard
Fri	4-Mar	<i>9.00-12.00</i> 13.00-17.30	Sal L	Presentation	Oral presentations project work*		Björn Lindahl

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Mon	7-Mar	9.15-12.00 13.15-17.00 17.00	Ratatosk Ratatosk	Lecture Exercise	Nitrogen Transformations N-cycling exercise <u><i>Deadline lab data compilation*</i></u>	<i>P14,15</i>	Sara Hallin Chris Jones
Tue	8-Mar	<i>9.00-17.00</i> 17.00			<i>project work / selfstudy</i> <u><i>Deadline lab report 3*</i></u>		
Wed	9-Mar	<i>9.00-17.00</i>			<i>project work / selfstudy</i>		
Thu	10-Mar	9.15-14.00 <i>14.00-17.00</i>	Hugin & Munin	Practicals	Data compiling day, analysis and discussion* <i>project work / selfstudy</i>		Karina Clemmensen
Fri	11-Mar	<i>9.00-17.00</i> 17.00			<i>project work / selfstudy</i> <u><i>Deadline project report*</i></u>		

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Mon	14-Mar	9.15-12.00 <i>12.00-17.00</i>	Sal A241	Exercise	Group assignment discussing human impacts <i>project work / selfstudy</i>	P18	XX
Tue	15-Mar	9.15-12.00 12.00-13.00 13.15-14.15 <i>14.00-17.00</i> 17.00	Sal Z Sal T	Lecture Evaluation	C/N and modeling in agriculture Pizza lunch Course evaluation <i>project work / selfstudy</i> <u>Deadline peer review project report*</u>	P18	Thomas Kätterer Björn Lindahl, Karina Clemmensen
Wed	16-Mar	<i>9.00-17.00</i>			<i>project work / selfstudy</i>		
Thu	17-Mar	<i>9.00-13.15</i> 13.15-15.00 <i>15.00-17.00</i> 17.00	Zoom/Online	Questions	Questions exam <i>project work/selfstudy</i> <u>Deadline revised project report*</u>		all teachers (0)
Fri	18-Mar	<i>9.00-17.00</i>			<i>selfstudy</i>		

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Mon	21-Mar	<i>9.00-17.00</i>			<i>selfstudy</i>		
Tue	22-Mar	<i>9.00-17.00</i>			<i>selfstudy</i>		
Wed	23-Mar	14.00-19.00	Tentamenssal 2	Exam	Exam*		NN

Planned examinations

The following written examinations are planned for the course (note that this is preliminary information):

1. Regular written examination during the course: *Wednesday the 23rd of March 2022, 14.00-19.00, location: Tentamenssal 2*
2. First re-examination in connection with the course: *Wednesday the 4th of May 2022, 13.00-18.00, Location: Tentamenssal 1*
3. Additional re-examination: *Wednesday the 24th of August 2022: time and location to be determined*

If you plan to attend a written examination, you must register at the latest 10 weekdays (usually two weeks) beforehand. Registration is made via Ladok

For a regular examination, registration can be done from the start of the course; for re-examination, it opens about four weeks before the examination.

Re-examination dates are preliminary. Information on exact time and location for re-examinations will become available when the time approaches.

For access to extended time, separate location or computer for examination, you must inform our course secretary at mark-kurssektariat@slu.se; this requires a special decision from the disabled-student office (see <https://www.slu.se/en/education/contact-and-support/disabilities/>).

Course literature

- S: Schlesinger and Bernhardt: Biogeochemistry
P: Paul: Soil microbiology, ecology, and biochemistry
B: Bardgett and Wardle: Aboveground-Belowground linkages

Teachers

Elsa Arrazola Vasquez
Karina Clemmensen
Jon-Petter Gustafsson
Sara Hallin
Chris Jones
Thomas Keller
Thomas Kätterer
Björn Lindahl
Katharina Meurer
Aurelien Saghai
Marie Spohn
Kaisa Torppa
Maria Viketoft

Teaching assistants practicals

Karolina Jörgensen
Lukas Hallberg
Louis Mielke
Tarquin Netherway
Erica Packard
Laura Müller
Carles Castaño

Literature project supervisors

Carles Castaño
Tino Colombi
Eduardo Vazquez Garcia
Karolina Jörgensen
Marcos Lana
Rong Lang
Katharina Meurer
Nargish Parvin
Grace Pold
Kaisa Torppa