

BI1438 Molecular and microbial ecology, 15 hp vt 2025*

Teaching activities: lecture (L), exercise (E), seminar (S), lab, study visit (V)

Mandatory moments are shown in **bold** and deadlines for project work/lab report in **orange**.

The text in *italic* is suggested activities for the week/day.

Date	Time	Topic	Type	Teacher	Room
v 4 - self-study					
Mo 20/1	13.15-15	Introduction to the course	L	AS	A338, BioC (meet in the entrance)
Tu 21/1	10.15-12	Introduction to microbial ecology and diversity	L	AS	A338, BioC (meet in the entrance)
	13.15-15	Introduction lab practicals & sowing	Lab	GP	BÖL 2, BioC
Wed 22/1	9.15-12	How to dissect a scientific paper?	S	JA	A338, BioC (meet in the entrance)
Th 23/1	9.15-11	Introduction to methods in ecology	L	EK	Sal X, Ulls hus (block D)
	11.15-12	Introduction to project work	L	AS	Sal X, Ulls hus (block D)
Fr 24/1	9.15-12	Introduction to molecular methods in ecology	L	GP	C212, BioC
	13.15-15.30	Study visit 1. SciLifeLab	V	AS	SciLifeLab
v 5 - Project work – self-study					
Mo 27/1	9.15-12	Introduction to molecular methods in ecology	E	GP	C213, BioC
Tu 28/1	10.15-12	Basic metabolism	L	BL	C216, BioC
	13.15-15	Basic metabolism	E	BL	C213, BioC
Wed 29/1	9.15-10	How do I look for and reference literature?	S	JP	C212, BioC
	10.15-12	Community ecology of microorganisms	L	MB	C212, BioC
Th 30/1	10.15-12	Plant-bacteria interactions on land	L	AS	Sal L, Undervisningshuset
	13.15-15	Biogeography on land and water	L	MB	C213, BioC
Fr 31/1	16.00	Deadline submission working plan project work			
v 6 - Project work – self-study					
Mo 3/2	13.15-15	Meet the author 1: Beneficial microbes in soils	S	AS	C213, BioC
Tu 4/2	10.15-12	Animal-microbe interactions: Overview	L	MS	Sal Y, Ulls hus (block D)
	13.15-15	Applications: Animal health	L	JD	C213, BioC
Wed 5/2		<i>Project work</i>			
Th 6/2	9.15-11	The bee microbiome	L	JM	C216, BioC
	11.15-12	Applications: Plant-growth promoting bacteria and biocontrol	L	MK	C216, BioC

	13.15-15	Plant-fungi interactions on land	L	BL	C213, BioC
Fr 7/2	9.15-11	Plant-fungal pathogen interactions	L	MD	C212, BioC
	11.15-12	Applications: Disease monitoring in forest nurseries	L	RL	C212, BioC
v 7 - Project work – self-study – read Meet the author paper 2					
Mo 10/2	10.15-12	Trophic interactions within microbial food webs	L	SB, SH	C216, BioC
	13.15-14	Theory: harvest, DNA extraction, PCR and qPCR	L	GP,CB,JJ,TG	C213, BioC
Tu 11/2	9.15-17	Harvest & DNA extraction	Lab	GP, TG	BÖL 2, BioC
Wed 12/2		<i>Preparation Meet the author 2.</i>			
Th 13/2	10.15-12	Meet the author 2. Trophic interactions	S	SB	C216, BioC
Fr 14/2	9.15-11	Anthropogenic impacts on terrestrial and aquatic ecosystems	L	TN	C213, BioC
	11.15-12	Applications: Climate mitigation	L	SH	C213, BioC
v 8 - Project work – Oral presentation – self-study					
Mo 17/2	9.15-17	Sequencing library preparation	Lab	CB	BÖL 2, BioC
Tu 18/2	16.00	Deadline submission project report for peer-review			
Wed 19/2	9.15-11	Resistance and resilience	L	CJ	Sal R, Ulls hus (block B)
	11.15-12	Applications: Environmental monitoring	L	ASz	Sal R, Ulls hus (block B)
Th 20/2		<i>Preparation oral presentation</i>			
Fr 21/2	9.15-12	Oral presentations project work	S	AS	A338, BioC (meet in the entrance)
	16.00	Deadline submission peer-review on project work			
v 9 - Lab report – self-study – read Meet the author paper 3					
Mo 24/2	9.15-17	Quantitative PCR	Lab	JJ	BÖL 2, BioC
Tu 25/2		<i>Project work + Lab report</i>			
Wed 26/2	12.00	Deadline revised project report			
Th 27/2	10.15-12	Microbe-microbe interactions	L	MM	C212, BioC
	13.15-15	Microbial evolutionary processes	L	MM	C213, BioC
Fr 28/2	9.15-11	Study visit 2. Sewage plant Kungsängsverket	V	AS	Sewage plant
v 10 - Lab report – self-study					
Mo 3/3	11.15-12	Theory: bioinformatic analyses	L	FPS	Sal Q, Ulls hus (block B)

	13.15-16	Sequence data processing	Lab	FPS	Datorsal 2 MVM, MVM
Tu 4/3	9.15-12	Community analysis	Lab	FPS	Datorsal 2 MVM, MVM
	13.15-14	Theory: phylogenetic analyses	L	CJ	C213, BioC
Wed 5/3	9.15-12	Phylogenetic analyses	Lab	CJ	Datorsal 2 MVM, MVM
Th 6/3	16.00	Deadline submission lab report part 1 (Intro + M&M)			
Fr 7/3	10.15-12	Meet the author 3. Microbial ecology in tundra	S	KC	Sal Y, Ulls hus (block D)

v 11 - Lab report – self-study					
Mo 10/3	10.15-12	Applications: Use of eDNA in conservation	L	EKa	C213, BioC
	13-15	Study visit 3. Statens veterinärmedicinska anstalt (SVA)	V	AS	Statens veterinärmedicinska anstalt
Tu 11/3		<i>Lab report writing</i>			
Wed 12/3	9-12	Data analysis day	E	GP	A338, BioC (meet in the entrance)
Th 13/3		<i>Lab report writing</i>			
Fr 14/3	12.00	Deadline submission final lab report			
	14.00	Course evaluation and fika			To be decided

v 12 - Self-study					
Mo 17/3		/			
Tu 18/3		/			
Wed 19/3		/			
Th 20/3		/			
Fr 21/3	8-12	Exam			Tentamenssal 1, Undervisningshuset

v 13					
Mo 24/3		<i>Last day to submit assignments</i>			

*Please note that this schedule may be subject to changes before and during the course.

Planned examinations

The following examinations are planned for the course:

1. Regular written examination during the course: Friday the 21st of March 2025, 8.00-12.00.
2. First re-examination in connection with the course: Wednesday the 23rd of April 2025; time and location to be determined.

3. Additional re-examination: 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 the Student Web; see under '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. Information on 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 the course leader; this requires a special decision from the disabled-student office (see <https://www.slu.se/en/education/contact-and-support/disabilities/>)

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