BIOGEOCHEMISTRY. 7.5 hp Spring term 2026
COORDINATOR Brüchert (VB)
TEACHER Brüchert (VB)

WEEK	DATE	START	END	Content	TYPE	ROOM	Teacher	Reading
W4	Tue 20/1	09:00	12:00	Course overview and concept; basic redox relationships of the coupled biogeochemical cycles C, O, S, Fe	Lecture	Y 11	VB	Fenchel Jorgensen Canfield
W4	Tue 20/1	13:00	16:00	Exercises of coupled global biogeochemical cycles	Exercise	Y 11	VB	
W4	Wed 21/1	09:00	12:00	Cardinal environmental and physiological regulators of biogeochemical processes	Lecture	U 10	VB	
W4	Wed 21/1	13:00	17:00	Continue Tuesday assignment	Exercises	U 10	VB	
W4	Thu 22/1	09:00	12:00	Thermodynamics of biogeochemical processes	Lecture	Y 11	VB	
W4	Thu 22/1	13:00	17:00	Energy from redox reactions in the environment	Lecture	Y 11	VB	
W4	Fri 23/1	09:00	12:00	Kinetics of biogeochemical processes	Lecture	U 13	VB	
W4	Fri 23/1	13:00	17:00	Discussion	Discussion	U 13	VB	
W5	Mon 26/1	09:00	12:00	Reactive mass transport in the environment - mass conservation equations	Lecture	Y11	VB	
W5	Mon 26/1	13:00	16:00	Exercises on biogeochemical processes, fluxes and rates	Exercises	Y11	VB	
W5	Tue 27/1	09:00	12:00	Nutrient perspectives in coupled biogeochemical rates	Lecture	Y11	VB	
W5	Tue 27/1	13:00	16:00	Net versus gross rates and hidden processes	Exercises	Y11	VB	
W5	Wed 28/1	09:00	12:00	Net versus gross rates and hidden processes	Lecture	Y11	VB	
W5	Wed 28/1	13:00	16:00	Introduction to independent research topics and explanations	Lecture	Y11	VB	
W5	Wed 28/1			Project preparation	Self study		VB	
W5	Wed 28/1			Project preparation	Self study		VB	
W5	Thu 29/1			Project preparation	Self study		VB	
W5	Thu 29/1			Project preparation	Self study		VB	
W5	Fri 30/1			Project preparation	Self study		VB	
W6	Fri 30/1	14:00	17:00	Presentations	Seminar	U 13	VB	
W6	Mon 2/2	09:00	12:00	Structure of OM, biosynthesis		Y 11	VB	
W6	Mon 2/2	13:00	17:00	exercises biosynthesis and OM composition	Lecture	Y 11	VB	
W6	Tue 3/2	09:00	12:00	reading/online lecture lipid biomarker concept	Lecture	U 10	JL	
W6	Tue 3/2	13:00	16:00	Discussion & exercises lipid biomarkers, OM transformation	Seminar	U 10	JL/VB	
	Wed 4/2			Preparation for exam				
W6	Wed 4/2			Preparation for exam	Seminar	Högbomsalen	VB	
W6	Wed 4/2			Seminar biogeochemistry	Presentation in Biogeochemistry seminar series Volker Brüchert	Högbomsalen	VB	
W6	Thu 5/2			Preparation for exam			VB	
W6	Thu 5/2			Preparation for exam			VB	
W6	Fri 6/2	13:00	16:00	Exam		U 13	VB	Presentation four themes
W7	Mon 9/2	08:00	10:00	Travel to Askö		Askö	VB	
W7	Mon 9/2	11:00	12:00	Introduction Askö work	Lecture	Askö	VB	
W7	Tue 10/2	13:00	16:00	Biogeochemical processes at interfaces	Lecture/discussion	Askö	VB	
W7	Tue 10/2	09:00	14:00	Ship day	Group work	Askö	VB	
W7	Wed 11/2	09:00	17:00	Lab day	Group work	Askö	VB	
W7	Wed 11/2	09:00	12:00	Ship day	Group work	Askö	VB	
W7	Thu 12/2	13:00	17:00	Data evaluation/analysis	Group work	Askö	VB	
W7	Fri 13/2	09:00	12:00	Askö seminar	Seminar	Askö	VB	
W7	Fri 13/2	13:00	15:00	Summary field and lab work	Discussion	Askö	VB	
	Fri 13/2	16:00	18:00	Return to Stockholm				
W8	Mon 16/2			Report writing			VB	
W8	Mon 16/2			Report writing			VB	
W8	Tue 17/2			Report writing			VB	
W8	Tue 17/2			Report writing			VB	
W8	Wed 18/2			Report writing			VB	
W8	Wed 18/2			Reports due			VB	

Themes
The biogeochemical nitrogen cycle: Aquatic ecosystem focus
The biogeochemical Si and P cycles: Aquatic ecosystem focus
Biological carbon fixation: processes, rates, regulation: Aquatic ecosystem focus
Microbial carbon degradation: processes, rates, and carbon burial: Aquatic ecosystem focus

Assessment:
Exam 50%
Presentation of theme 25%
Askö report 25%

Personnummer Namn c/o

Utdelningsadress	Postnummer	Postort	Land

E-post