

BIOR17 LIMNOLOGY 15 cr

Fall 2011

Preliminary schedule

TLA = teaching/learning activity. Lec = lecture, Peer = peer group discussions/work, Lab = laboratory or taxonomic training, Exe = in class exercises, Field = field excursion, Pres = oral presentations by students, Quiz = physical-chemical limnology and taxonomy tests, Exam = final exam. **All TLA's except lectures are mandatory.** Note that the class is sometimes divided into two groups for lab work; grp 1 and grp 2. Color coding: **GREEN** = field, **YELLOW** = quizzes, exams.

Day	Date	Time	Activity	Location	TLA	Teacher
Mon	29/8	09.15-10.00	Introduction, mandatory attendance	Ä	Exe	VG
		10.15-12.00	Introduction to Limnic ecosystems		Lec	VG
Tue	30/8	09.15-12.00	Physical limnology: light, heat	Ä		VG
		13.15-16.00	Chemical limnology	Ä	Lec	VG
Wed	31/8		Time for text-book reading			
Thu	1/9	9.15-11.30	Phosphorus	Ä	Lec	VG
		11.30 -12.00	Preparation chemistry lab	Ä	Exe	VG
Fri	2/9	09.15-10	Introduction to lake data exercise	Ä	Lab	VG
		10.00 -12.00	Lake data exercise	Ä	Peer	
		13.15-16.00	Lake data exercise	Ä, blå-, gul-, vit-sippan	Peer	
Mon	5/9	08.15-12.00	Water Chem Lab I, grp 1	Abb	Lab	VG, KL
			Lake data exercise, grp 2	Ä, blå-, gul-, vit-sippan	Peer	
		13.15-17.00	Water Chem Lab I, grp2	Abb	Lab	VG, KL
			Lake data exercise, grp 1	Ä, blå-, gul-, vit-sippan	Peer	
Tue	6/9	08.15-12.00	Water Chem Lab II, grp 2	Abb	Lab/Peer	VG, KL

			Lake data exercise, grp 1	Ä, blå-, vit-, gulsippan		
		13.15-17.00	Water Chem Lab II, grp 1			
			Lake data exercise, gr 2	Abb		
				Ä, blå-sippan only!		
Wed	7/9	09.15-9.45	Lab review: Water chemistry	Ä	Exe	VG
		10.00-12.00	Nitrogen	Ä	Lec	VG
		13.15-16	Presentations lake data exercise	Ä	Pres	VG
Thu	8/9	09.15-12.00	Macrophytes & periphyton ecology	Ä	Lec	VG
Fri	9/9	09.15-12.00	Macrophytes, species knowledge, gr 1	Ä	Exe	PH
		13.15-16.00	Macrophytes, species knowledge, gr 2	Ä	Exe	PH
Mon	12/9	09.15-12.00	Macroinvertebrates ecology	Ä	Lec	CB
		13.15-16.00	River Ecology	Ä	Lec	CB
Tue	13/9	09.15-16.00	River and macroinvertebrate excursion	Field	Field	CB, PH
Wed	14/9	09.15-12.00	Macroinvertebrates, species knowledge	Ä	Exe	CB, PH
		13.15-16.00	Macroinvertebrates, species knowledge	Ä	Exe	
Thu	15/9	09.15-12.00	QUIZ: Phys-chem limnology	Ä	Quiz	VG
Fri	16/9	10.15 -12.00	Zooplankton Ecology	Ä	Lec	LAH
		13.15-15.00	Zooplankton, species knowledge	Ä	Exe	ME
Mon	19/9	09.15-12.00	Fish Ecology	Ä	Lec	AP
		13.15-17.00	Fish, species knowledge	Ä	Exe	KH
Tue	20/9	09.15-12.00	Microbial Ecology	Ä	Lec	VG
Wed	21/9	09.15-12.00	Phytoplankton Ecology	Ä	Lec	KR
		13.15-15.00	Introduction to Excursion projects: Planning purpose, hypotheses, predictions, methods and equipment productivity & biomass	Ä	Exe	VG, PH
Thu	22/9	09.15-12.00	Phytoplankton, Species knowledge	Ä	Lab	KL, KR
Fri	23/9	09.15 -12.00	Phytoplankton, Species knowledge	Ä	Lab	KL, KR

		13.15-16.00	Project preparation			
Mon	26/9	09.15-16.00	Project preparation	Ä		
Tue	27/9	9.15-12.00	Oral presentations	Ä	Pres	
		13.15-16.00	Preparation of equipment lists, collection of equipment, protocols			
Wed	28/9	08.00-18.00	Excursion to eutrophic Lake Sövdesjön	Field	Field	VG, PH
Thu	29/9	09.15-12.00	Eutrophication & trophic interactions	Ä	Lec	VG
		13.15-16.00	Analysis field data	Abb	Exe	VG et al.
Fri	30/9	9.15-12:00	Collection of equipment for Aneboda	Ä	Exe	VG et al.
		13.15-16.00	Distribution of final plans to all groups and teachers.	Ä	Exe	VG, PH
Mon- Fri	3- 7/10	See separate schedule	Aneboda Limnology Excursion See separate schedule!	Aneboda	Field	VG, PH,
Mon	10/10	09.15-12.00	Analysis field data	Abb	Lab	VG et al.
Tue	11/10	09.15-16.00	Analysis Field data	Abb	Lab	VG et al.
Wed	12/10	09.15-16.00	Project work		Exe	
Thu	13/10	09.15-16.00	Project work		Exe	
Fri	14/10	09.15-16.00	Project work		Exe	
Mon	17/10	09.15-16.00	Project work		Exe	
Tue	18/10	09.15-16.00	Project work		Exe	
Wed	19/10	09.15-16.00	Printing of reports Submission deadline: 12.00 hrs Pick-up written reports 15.00 hrs		Exe	
Thu	20/10	09.15-16.00	Prepare oral presentations		Exe	
Fri	21/10	09.15-16.00	Student oral presentations of project reports	Ä	Pres	VG et al.
Mon	24/10	09.15-16.00	Review of final exam questions	Ä	Exe	VG
Tue	25/10					
Wed	26/10	09.15-16.00	FINAL EXAM	Ä	Exam	VG et al.
Thu	??/11	13 -19	Written final exam re-take	Ä	Exam	VG et al.

Main course book: Brönmark, C. & Hansson, L.-A. 2005, 2nd edition. The biology of lakes and ponds. Oxford University Press. 285 pp. These books are expected to be available in the KFS & A-F bookstore.

As **supplementary reading or reference book** for those who want a more comprehensive literature: Kalff, J. 2002. Limnology: inland water ecosystems. Prentice-Hall Inc., Upper Saddle River, NJ., 592 pp.

Lecture hall/laboratory. All teaching activities, Except labs, are taught, or at least start, in Ängen (“The Meadow”) on the ground floor in the Ecology Building, Sölvegatan 37, Lund. Water chemistry and microbial labs are taught in Abborren (“The Perch”) in the middle wing on the ground floor of the Ecology Building.

Attendance. *Attendance is mandatory at all teaching/learning activities (TLAs), except lectures.* This means presence at all scheduled exercises, taxonomy exercises, labs, presentations and quizzes in order to pass the course. No Excuses except medical issues are accepted (provide doctor’s certificate). Labs must be finished, results turned in, and benches cleaned up before you can leave at the end of the day. Attendance during the field Excursions is a requisite to pass the course.

Photocopies. Copying of course material can be done with the course copy card, marked ”Limnology”, that is available in the copy room on the bottom floor. Private copying is allowed but is charged 65 öre per page. Should be paid to the course coordinator.

Card passes can be checked out at Carl Sjöqvist’s office. You need to deposit 120 SEK, but 100 SEK will be returned to you when you return the card at the end of the course. You need cards to get into the Limnology hallways.

Teachers

VG	Wilhelm “Ville” Graneli	Professor, course director
LAH	Lars-Anders Hansson	Professor
KR	Karin Rengefors	Professor
CB	Christer Brönmark	Professor
AP	Anders Persson	Associate Professor
PH	Per Hallgren	PhD student
KL	Karen Lebret	PhD student
KH	Kaj Hulthen	PhD student
MSV	Marie Svensson	Res. eng.
ME	Mattias Ekvall	PhD student

T-team: ALL lecturers

LUND, 17 August 2011
Wilhelm Graneli/course coordinator