Schedule and information for the course in Terrestrial Ecology (10 ECTS), period 4, 2009

Welcome to the course in terrestrial ecology which is a part of the program Environmental Engineering at the Department of Technology, Lund University. The course is given by the Institution of Ecology. Schedule and information will also be available at the course homepage http://ced1.srv.lu.se/flex/exta01/ Information and changes in the schedule will also be sent to your W06 email address so please check it regularly so that you don't miss any information.
For teacher on this course, information about Environmental Engineering at the Department of Technology is available at http://www.eko.lth.se

Most lectures will be given in the Red Room (Röda Rummet), some in the Blue Hall (Blå Hallen) in the ecology building (RR and BH in the schedule). The 4-5 May we will have an excursion.

Teachers on the course:

Namn		**tel**	**e-post**
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Course goals and content:

The aim of the course is to provide knowledge and understanding of:

- Ecology from an evolutionary perspective.,
- The structure and dynamics of terrestrial ecosystems.
- Interactions between biological and chemical-physical processes in the soil
- interactions between natural processes and human impact on ecosystems
- Oral and written presentations
- Search, evaluate and compile information within the field of natural sciences.

The course contain the following parts: 1) Basic ecological theory, 2) Soil Biology, 3) Terrestrial ecosystems, 4) Environmental aspects and measures. Teaching will be in the form of lectures, filed exercises (excursions), seminars, computer exercises and laborations. A literature study will be performed which will be presented orally as well as a written report.

Literature: Essentials of Ecology, 3:rd edition, Townsend, Begon &Harper, Blackwell publishing, 2008. The book is ordered at KFS.
Handouts about soil Ecology
Additional handouts from teachers

Examination: The course has a written exam and written reports on exercises and literature studies are necessary to pass the course.

The extent of the course:

Literature study:
The literature study will follow the whole course. You will choose a subject within the filed of environmental science within terrestrial ecosystems. You will choose e from a list that will be presented the 18th of April. The literature study will be performed in groups with three students. The report will be 2-3 pages with 5-10 references to scientific articles. You will get feedback from a supervisor at two occasions and you will get information about how to search scientific literature in databases. The report will be presented the 7-8 of May. Each student will present her/his own work and be an opponent on another groups report.

Exercises:
These are compulsory and will be reported either orally or with a written report. ‘
• The computer exercises 1,2,3 will be performed in MatLab and decomposition will be performed in excel on your own computers sp please bring them at these occasions.
• Laborations and field/lab exercises will be performed. You will get a detailed schedule for these exercises later.
• You will have one whole day of excursion in terrestrial ecosystem in the first week of May. This excursion will involve both terrestrial ecology and geology.

Seminars:
For the seminars you will get questions to discuss that are related to chapters in the textbook or you will get additional material and questions related to more applied fields of ecology. This will be sent out by email and published on the webpage.

Reading instructions (Essentials of Ecology) for lectures are indicated in the schedule. In some cases the lecturer will hand out additional material. You will also get a list with ecological terms and a list with study questions for the different chapters in the textbook. These will be sent out by email and published on the webpage.

For the seminars you should read the following chapters in the book or additional material handed out before the seminar:

23 March, Evolution & Populations	Chap. 2, 5, 6, 8,
30 March, Ecosystems and Communities	Chap. 9, 10
1 April, Soil ecology	chap. 11, Additional material
27 April GMO	Additional material
28 April, Agricultural ecology	Chap. 12.4-12.7 + Additional material
6 May Plant communities	Additional material

Date	Time			Locality	Teacher	Literature
16/3	9.15-10 10.15-12 13.15-15	L L L	Introduction Conditions and resources Populations: competition and predation 1	BH BH BH	HW HW OA	 Chap. 3-4 Chap. 5,6
17/3	8.15-10 10.15-12 13.15-15	L L E	Populations : competition and predation 2 Evolution Computer exercise 1	RR RR Heden Ängen	OA JR JN MP	Chap. 7 Chap. 2,8
18/3	10.15-12 13.15-14	E E	Computer exercise 2 Start literature project	Heden Ängen RR	JN MP HW, EB PAO	
3-4/4			*Teknisk Geologi*			
23/3	8.15-10 10.15-12 13.15-15 15.15-17	 S L E	Own preparation for seminar Seminar evolution and populations Literature search theory Literature search (practical, own computer group 1-11)	 GrR BH Heden	 JN + 5 KA KA HW	
24/3	8.15-10 10.15-12 13-15	L L E	Ecosystems Communities 1 Ecosystems Communities 2 Literature search (practical, own computer group 12-21)	BH BH Heden	EB EB HW KA	Chap 9 Chap10
25/3	8.15-10 10.15-12 13.15-	L L E	Ecosystems Communities 3 Microorganisms in soil Own preparation for seminar	BH BH	EB EB	Chap11 Handouts
10-11/4			*Teknisk Geologi*			
30/3	8.15-10 10.15-12 13.15-15	L S	Nutrient cycles Seminar Ecosystems and Communities Litt. project supervision	BH GrR	EB EB+5 EBHWPA	Chap 11 Handouts
31/3	8.15-10 10.15-12 13.15-	L L	Soil organisms and decomposition 1 Soil organisms and Decomposition 2 Own preparation for seminar	RR RR	EB EB	Chap 11
1/4	8.15-10 10.15-12 13.15-16	L S E	Bioremediation Seminar soil ecology Computer exercise decomposition	RR GrR Ängen Heden	EB EB+5 HW, EB	
Påskup pehåll tom 25/4						
22-24/4			*Teknisk geolog* Geol exk			

27/4	8.15-10 10.15-12 16.00	L S E	Plant and soil relations Seminar Genetically modified organisms (GMO) Literature project hand in draft	RR GrR	PAO EB+5	Handouts
28/4	8,15-10 10.15-12 13.15-15	L S	Plants in ecosystems *Agricultural sciences and environmental problems* *Seminar agricultural sciences*	RR GrR	PAO AP, HW	Chap. 13 + handouts
29/4	10.15-12 13.15-15	L E	Global climate Literature project supervision 2	RR	TH EB HW PAO	Handouts
4/5	8.15-17	E	Excursion Group A, B, C		PAO, CS	
5/5	8.15-17	E	Excursion Group D,E,F		PAO, CS	
6/5	8.15-10 10.15-12 13.15-15	L S L	Plant in ecosystems follow-up Seminar plants in ecosystems Conservation biology	RR RR	PAO PAO+5 HS	 Chap. 14
7/5	8.15-12	E	Report literature project	RR, Heden	PAO HW EB	
8/5	8.15-12	E	Report literature project	RR, Heden	PAO HW EB	
11/5	8-17	E	Field/lab exercise (excursion)	GrR		
12/5	8-17	E	Field/lab exercise (data analysis)	GrR		
13/5	8-12	E	Field/lab exercise (report)	GrR		
14/5	8.15-17	E	Field/lab exercise (excursion)			
15/5	8.15-17	E	Field/lab exercise (data analysis)	GrR		
18/5	8.15-12	E	Field/lab exercise (report)	GrR		
19/5			Bioenergy debate, course evaluation etc. Time for questions			
20/5						
1/6	8.00-13.00		Written exam	Gasque-salen	HW	