Introduction to Ecology

Dr. Elli Groner
3 academic hours, 3 credits

Course description
Students will be taught the basic terminology, principles and ideas of ecology. The course will introduce the basic ideas and history of the science, its evolution and links to other sciences. Subsequent lectures will examine these ideas looking at different ecological scales: individuals, populations, communities and ecosystems. Human ecological issues will also be discussed where relevant within the framework of the course.

Grade components:

Final exam	40%
Mid-term exam	10%
Biodiversity project	20%
Quizzes, exercises, discussions	30%

Reading, assignments, exercises & practical

Q	Reading quizzes	At the beginning of each class a question will be posed based on the reading set for the coming lesson. The reading is required to understand the lesson.
E	Exercise	Homework on the material already taught. This should be done in pairs and submitted the next week. The exercise allows students to practice the material that was taught.
D	Discussion	Discussion in class on the taught topic and human impact upon it
P	Practical	Hands-on demonstration of an example from the taught topic.
BP	Biodiversity project	Done in pairs, submitted as a paper and 10 min talk
MTE	Mid-term exam	Exam in week 6 on material from weeks 1-5
FE	Final exam	Exam on material from all the semester

Textbooks for course
Ecology: Individuals, Populations and Communities / M. **Begon**, J. Harper, C. Townsend. Blackwell Science LTD, Oxford, UK
Ecology: Concepts and Applications / M. C. **Molles** Jr. 2002. McGraw-Hill Higher Education, NY, USA (2nd edition). Only for UG.

Schedule and readings:

Week	Lecture	topic	Reading from Begon	Assignments
Week 1	1	Introduction		
	2	Evolution		P
Week 2	3	Evolution	6-9,22-27	D
	4	Behaviour		P
Week 3	5	Behaviour	364-368	
	6	Biodiversity		E
Week 4	7	Biodiversity	679-692	BP
	8	Populations		P
Week 5	9	Populations	224-234, 244-247	D
	10	Life history	147-154, 170-172, 526-530, 552-555, 581-589	
Week 6	11	Human impact		
	12	Mid term exam		MTE
Week 7	13	LTER		
Week 8	14	Distribution	173-188, 601-610	P
	15	Distribution		E
Week 9	16	Competition	273-281, 287-290	D
	17	Competition		E
Week 10	18	Predation	369-374, 429-437, 482-489, 520-521	
Week 12	19	Food webs	730-748, 763-767, 773-774, 828-837, 838-846	D
	20	Ecosystem Ecology	100-122, 128-134, 744-769	D
Week 13	21	Landscape Ecology		E
	22	Biogeography	28-31, 48-59, 79-87, 941-952, 711-730	
Week 14	23	Desert Ecology		
	24	Student Presentations\final exam		BP

Recommended Reading:

- Evolution - Mark Ridley, Blackwell publishing
- Measuring biological diversity - Anne Magurran, Blackwell publishing
- Animal ecology - Charles Elton, new edition, University of Chicago press
- Human ecology – Basic concepts for sustainable development. Gerald G Marten. Earthscan Publishing, 2001.

Extra papers will be given throughout the semester according to the discussions.