Fall 9-1-2001

BIOL 121N.01: Introductory Ecology

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BIO 121 INTRODUCTORY ECOLOGY
COURSE SYLLABUS
FALL 2001

Instructor: Dr. Anna Sala.
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Meeting days/time: Tuesday and Thursday 12:40 - 2 p.m.

Room: BOT 307

Office hours: Tuesday 4:00-5:00 p.m. and Thursday 3:00-5:00 p.m.

Course Content: Introductory Ecology (BIOL 121) is a course for undergraduate students taking their first ecology course. My goal is to provide students with sufficient ecological background to appreciate the complexity of natural systems and to understand daily life ecological and environmental issues. The course is appropriate for students of all disciplines with an interest in the areas of ecology, environmental science, or general biology. The first part of the course will concentrate on how the physical environment shapes the natural world in terrestrial and aquatic ecosystems. We will see how living organisms interact with factors such as temperature, water, light and other environmental features. The second part of the course will focus on the collective characteristics of populations (groups of organisms of a single species), such as distribution, geographic dispersion, dynamics and growth. How organisms interact with each other (e.g. competition, predation, mutualisms) will be the focus of the third part of the course. The features of natural communities in which populations of different organisms interact, and the main properties of the ecosystems they live in, will occupy the fourth part of the course. Our goal here will be to provide a framework for understanding the dynamics of communities and movement of energy and elements within ecological systems.

Classroom attendance is essential and mandatory. Your participation in class is very important. Because this is a non-major class, I realize many students will have little science background. Therefore, questions at all levels are encouraged. Your comments and questions in class will stimulate discussion and help other students to clarify concepts. Even if you are not pursuing a science-oriented career, my goal is to provide students with a solid ecological background to deal with daily life ecological and environmental issues.

Text: Molles, M.C. Jr. 1999. Ecology: Concepts and Applications. McGraw-Hill. The textbook should be used as a reference to clarify class notes. The textbook also offers excellent web resources.

Examinations: there will be two in-session exams (100 points each), and a final exam (150 points). All exams will be largely based on class notes. The final exam will be partially comprehensive. Each exam will consist of a set of objective questions (multiple choice) as well as short-answer questions (subjective). No make-up exams will be made unless justified arrangements have been made prior to the scheduled time.

BIO 121 **Tentative Class Schedule** **Fall 2001**

Dr. Anna Sala

(Exam dates will remain unchanged)

REVISED SYLLABUS FOR MOLLES 1999

Date	Topic	Pages
9/4	Course Introduction	1-9
9/6	Climate	16-18
9/11	Climate (cont.) and Soils	456-460 470-472
9/13	Responses to Physical Factors: Energy and Nutrients	136-157
9/18	Responses to Physical Factors: Water	110-134
9/20	Responses to Physical Factors: Temperature	85-108
9/25	Terrestrial Biomes Tropical Forest Tropical Dry Forest Savanna Desert	19-29
9/27	Terrestrial Biomes (cont.) Woodland and Shrubland Temperate Grassland Temperate Forest	29-34
10/2	Terrestrial Biomes (cont.) Temperate Forest (cont.) Boreal Forest Tundra	34-40
10/4	Review	
10/9	**EXAM I**	
10/11	Life in Water Oceans	49-66
10/16	Life in Water (cont.) Rivers and Streams Lakes	67-77
10/18	Social Relations	Not Covered
10/23	Populations: Genetics and Natural Selection	Not Covered
10/25	Populations: Distribution and Abundance	163-185
10/30	Populations: Dynamics	187-207
11/1	Population Growth	209-226
11/6	Life Histories	Not Covered
11/8	Review	
11/13	**EXAM II**	
11/15	Species Interactions: Competition	231-251
11/20	Species Interactions: Exploitation	254-278
11/22	THANKSGIVING HOLIDAY	
11/27	Species Interactions: Mutualism	280-299
11/29	Communities and Ecosystems: Species Diversity	303-321
12/4	Communities and Ecosystems: Food Webs	323-341
12/6	Communities and Ecosystems: Primary Production	343-361
12/11	Communities and Ecosystems: Nutrient Cycling	363-380
12/13	Communities and Ecosystems: Succession and Stability	382-404
TBD	REVIEW	
12/18	**FINAL EXAM 3:20-5:20 p.m.**	