


3 credits	30.0 h	Q2
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Teacher(s)	Van Dyck Hans ;Wesselingh Renate ;
Language :	French
Place of the course	Louvain-la-Neuve
Main themes	All elements of ecology, from the individual to the ecosystem via populations and population interactions, will be dealt with in this course, to give the student basic knowledge that will be built upon in other, advanced courses later in the curriculum. The theoretical course is entirely given in English, but questions can be asked (and will be answered) in French.
Aims	<i>The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".</i>
Content	1-Introduction. The order of the natural world; discovering the order of nature. 2-Organisms in physical environments. Life and the physical environment; water and solute balance; energy and heat; response to variation in the environment; biological factors in the environment; climate, topography, and the diversity of the natural world. 3-Energy and materials in the ecosystem. The ecosystem concept; energy flow in ecosystems; pathways of elements in ecosystems; nutrient regeneration in terrestrial and aquatic ecosystems; regulation of ecosystem function. 4-Population ecology. Population structure; population growth; population regulation; metapopulations; population fluctuation and cycles; extinction, conservation, and restoration. 5-Population interactions. Resources and consumers; competition theory; competition in nature; predation; herbivory and parasitism; coevolution and mutualism. Practical work for biology students : observations and experiments on three trophic levels (plant, herbivore, carnivore) in the Bois de Lauzelle. Other students : individual observations during spring and development of scientific hypotheses based on these observations.
Other infos	Evaluation : Written exam (in French) on the theoretical part (80%) and written report on practical work (20%) Support : Syllabus, PowerPoint presentations. The book on which this course is based is Ecology (4th edition, 1999) by R.E. Ricklefs & G.L. Miller (Freeman & Co.). To follow this course, it is not necessary to buy the book, which also exists in a French translation (De Boeck), but it is available in the Sciences Library.
Faculty or entity in charge	BIOL

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Aims
Master [120] in Environmental Science and Management	ENVI2M	3		
Master [60] in Environmental Science and Management	ENVI2M1	3		