

Module number	Module name	Professor in charge
	Ecology	Prof. Dudel
Contents and qualification aims	<p>Know how to define and to get knowledge in ecology as a pure and applied science; hierarchy of living systems and the ecosystem concept; physical and chemical determinants of biosphere and of here parts; evolution and coevolution of living beings and entire biosphere; Effect of environmental conditions on individuals, populations and communities and contrast between conditions and resources (availability, aquisition and trade offs); demographic processes (growth, birth, death, migration, life cycles), intra- und interspecific competition, coexistence and mutualism (e.g. symbiosis) as well as interaction and regulation in food webs; flux of energy-, matter - and information between organisms and through ecosystems; biodiversity in different spatial and temporal scales; global change and sustainability (ecological dimension);</p> <p>To get understanding and knowledge on causes and effects of fast change of dynamic steady states in species populations, communités and of entire biosphere as well as to understand our capacities and limitations for control, utilization, rehabilitation and conservation of species populations and ecosystems.</p>	
Teaching form	<p>2 hours a week, lectures, 1 hour a week, tutorial, 1 hour a week, practical training for the study work</p>	
Pre-requisite of attendance	<p>basic knowledge in physics, chemistry and biology Literature: Townsend C.R., Begon, M., Harper, J.L. (2005), Essentials in Ecology Blackwell Scientific</p>	
Usage	<p>The module is a mandatory modul. It is suitable especially for courses of studies of the environmental sciences.</p>	
Pre-requisite to achieve credit points	<p>The credit points are earned if the student passes the modul exam. The modul exam is alternatively: A study work (PO § 7) and an oral presentation (PO § 10) or a written exam (90 minutes) and an oral presentation (PO § 10), Pre-requisit to participate in the written exam is the regular attendance of the seminar,</p>	
Credit points and marks	<p>The module earns 5 cr. The total mark is formed by 25% from rating of the oral presentation in the seminar and by 75% from the rating of the written exam or the study work.</p>	
Frequency of the module	<p>The module is offered each winter semester.</p>	
Work load	<p>The student's work load is 150 hours.</p>	