

Module title		Abbreviation
Structure and Function of Cells		07-1A1ZE-152-m01
Module coordinator		Module offered by
holder of the Chair of Plant Physiology and Biophysics		Faculty of Biology
ECTS	Method of grading	Only after succ. compl. of module(s)
5	numerical grade	--
Duration	Module level	Other prerequisites
1 semester	undergraduate	Admission prerequisite to assessment: exercises. Regular attendance of exercises (minimum 80%) and successful completion of the respective exercises (approx. 25 to 30 hours) are prerequisites for admission to assessment.
Contents		
<p>The course will acquaint students with the elementary building blocks of life as well as biological categories. Building on this knowledge, the course will then discuss the cell, the smallest unit of life, starting with its macroscopic structure before moving on to its microscopic structure. The course will point out differences and similarities between prokaryotic cells (bacteria, archaeobacteria) and eukaryotic cells (animals, plants). Students will acquire the fundamental knowledge necessary to understand the forms and functions of prokaryotic, animal and plant organisms, with morphology and cytology being discussed in a physiological context. The contents of the module are relevant for biological disciplines at all levels of biological organisation. Students will also acquire and practise some of the fundamental preparation skills bioscientists are often required to possess.</p>		
Intended learning outcomes		
<ul style="list-style-type: none"> • Knowledge of the structures of prokaryotic and eukaryotic cells and their (biological) macromolecules. • Knowledge of the specific characteristics of the intracellular and extracellular structures of prokaryotes as well as animal and plant cells. • Ability to recognise evolution as the driving force behind the phylogeny of species. • Familiarity with the distinguishing characteristics of major representatives of prokaryotes, animals and plants. • Familiarity with the components and functioning of microscopes. • Fundamental skills in the interpretation of macroscopic and histologic preparations by light microscopy. • Fundamental preparation skills. 		
Courses (type, number of weekly contact hours, language – if other than German)		
V (1.5) + Ü (3.5)		
Method of assessment (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus)		
written examination (approx. 60 minutes) creditable for bonus		
Allocation of places		
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Additional information		
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Workload		
150 h		
Teaching cycle		
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Referred to in LPO I (examination regulations for teaching-degree programmes)		
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Module appears in		

Bachelor' degree (1 major) Biology (2015)
Bachelor' degree (1 major) Biology (2017)
Bachelor' degree (1 major) Biology (2021)
Bachelor's degree (1 major, 1 minor) Biology (Minor, 2021)
Bachelor' degree (1 major) Biology (2022)
exchange program Biosciences (2022)