Module title			Abbreviation
Basics of Biology I			07-DM-FWBIO-1-262-m01
Module coordinator		**Module offered by**	
head of group Didactics of Biology		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; Admission to the examination (NUM) is not automatic upon registration. The prerequisite for admission to the examination is regular attendance at the exercises (at least 80% attendance) and passing the exercises set there, which amount to approximately 25-30 hours (B/NB).	

Contents

A lecture on the biology-specific contents of the curriculum for *Grundschule* or *Mittelschule* will equip students with essential knowledge in the areas of cytology, histology, anatomy and physiology. The following topics will be discussed: biological macromolecules, plant and animal cells, distinctive features of plant cells, organelles of the cell and their specific functions, fundamental principles of genetics, organs of the human body and their functions and performance, nervous systems, human sensory organs and how to keep them healthy, human ontogeny, health education, substance abuse prevention, viruses and bacteria as pathogens, fundamental principles of plant physiology (focus: photosynthesis), organs of vascular plants and their variations, tissues of vascular plants and their cellular structures. The exercises on cytology and anatomy will provide students with an insight into the internal anatomy of selected animals and plants. Students will examine plant organs, cutting cross and longitudinal sections. They will work with microscopes and binoculars and will develop experience with typical techniques in biology such as observation and examination. Students will also make drawings of the preparations.

Intended learning outcomes

The cell: the smallest building block of living organisms. Knowledge of organisms as living systems that need control and regulation. Recognising the DNA as the carrier of genetic information. Familiarity with the relationship between the structure and the function of organs. The most important parts of plants and their functions: terminology. Knowledge of the internal anatomy of selected animals. Ability to mount organisms and prepare microscopic preparations. Practical skills using microscopes/binoculars, the most important tools for the investigation of fundamental problems in biology. Ability to make scientific drawings.

Courses (type, number of weekly contact hours, language — if other than German)

V (2) + Ü (2)

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)

§ 38 I Nr. 1

Module appears in
keinem Studiengang zugeordnet