Module title | Microbiology 2  
Abbreviation | 07-GHR-MIBI2-092-m01

Module coordinator | holder of the Chair of Microbiology

Module offered by | Faculty of Biology

ECTS | 2

Method of grading | numerical grade

Duration | 1 semester

Module level | undergraduate

Other prerequisites |
Admission prerequisite to assessment: regular attendance of exercises, seminars and lab courses (weekly courses: a maximum of one incident of unexcused absence and one excused absence for a legitimate reason; fortnightly courses: one incident of unexcused absence) and successful completion of the respective exercises (required percentage as specified at the beginning of the course). The preparation of logs (10 to 15 pages) is an admission prerequisite to assessment.

Contents
This module will provide students with an opportunity to deepen their knowledge and skills related to aspects covered in the module Die prokaryotische Zelle (The Prokaryotic Cell) during their first semester. Students will become familiar with the fundamental principles of the metabolic physiology of bacteria and will learn how to differentiate bacteria according to their respective metabolic performance. They will consolidate their knowledge related to the classification of bacteria into archaeabacteria and eubacteria based on their respective characters. In addition, the module will discuss the use of microorganisms in industry and technology as well as the pathogenic properties of some species of microorganisms and the diseases caused by these.

Intended learning outcomes
- Familiarity with methods typically used in microbiology labs and ability to use these.
- Knowledge of the difference between gram-negative and gram-positive bacteria.
- Ability to name the different divisions of the bacterial kingdom as well as some important representatives.
- Ability to name metabolic performances of bacteria.
- Familiarity with methods for the differentiation of bacteria according to their metabolic performance.
- Familiarity with the role bacteria play in nutrient cycles in nature.
- Familiarity with industrial processes involving microorganisms and products of these.
- Ability to evaluate the pathogenic potential of bacteria.

Courses (type, number of weekly contact hours, language — if other than German)
Ü + V (no information on SWS (weekly contact hours) and course language available)

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. 30 minutes)

Allocation of places
--

Additional information
--

Referred to in LPO I (examination regulations for teaching-degree programmes)
§ 41 (1) 3. "Genetik oder Mikrobiologie"

Module appears in
First state examination for the teaching degree Grundschule Biology (2009)
First state examination for the teaching degree Hauptschule Biology (2009)
First state examination for the teaching degree Realschule Biology (2009)
First state examination for the teaching degree Mittelschule Biology (2013)