**Module title**  
Specific Microbiology 2

**Abbreviation**  
07-5S2MZ2-102-m01

**Module coordinator**  
holder of the Chair of Microbiology

**Module offered by**  
Faculty of Biology

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<tr>
<th>ECTS</th>
<th>Method of grading</th>
<th>Only after succ. compl. of module(s)</th>
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<tr>
<td>10</td>
<td>numerical grade</td>
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**Duration**  
1 semester

**Module level**  
undergraduate

**Other prerequisites**  
Admission prerequisite to assessment: regular attendance of exercises and seminar as well as successful completion of the respective exercises as specified at the beginning of the course.

### Contents

In this module, students will investigate relevant problems in the infection biology of a variety of pathogenic microorganisms. Students will investigate interactions of obligate intracellular and facultative intracellular bacteria with their host cells, e.g. the internalisation of pathogens by mammalian cells or interactions with cellular signal pathways.

### Intended learning outcomes

You will learn and apply fundamental methods in cell and microbiology (= cellular microbiology), e.g. human epithelial cell culture, infecting these host cells with pathogenic microorganisms, analysing host-pathogen interactions by light microscopy, confocal laser scanning fluorescence microscopy, flow cytometry, Western blot and traditional methods for determining virulence such as adhesion and internalisation experiments etc.

### Courses

- Ü + S (no information on SWS (weekly contact hours) and course language available)

### Method of assessment

Methods of assessment: a) written examination (approx. 45 to 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or e) presentation (approx. 20 to 30 minutes); students will be informed about the method and length of the assessment prior to the course.

### Allocation of places

Number of places: 30. Should the number of applications exceed the number of available places, places will be allocated as follows: Places will primarily be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one participant in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biologie (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in a standardised procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration. A waiting list will be maintained and places re-allocated as they become available. Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according to their total number of ECTS credits achieved (quantitative ranking). The applicants'
position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated ac-
cording to this third ranking. Among applicants with the same ranking, places will be allocated according to the
qualitative ranking or otherwise by lot. Selection process group 2 (5%): Places will be allocated according to the
following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in modules/module
components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, pla-
ces will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant;
among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of
places): allocation by lot. Should the module be used only in the Bachelor’s degree subject Biologie (Biology)
with 180 ECTS credits, places will be allocated according to the selection process of group 1.

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<th>Referred to in LPO I</th>
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<td>Bachelor’ degree (1 major) Biology (2010)</td>
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