### Module description

<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
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<tbody>
<tr>
<td>Good Practices in Laboratory, Clinics and Production</td>
<td>07-SQF-GXP-152-m01</td>
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<table>
<thead>
<tr>
<th>Coordinator</th>
<th>Module offered by</th>
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<tbody>
<tr>
<td>BioCareers</td>
<td>Faculty of Biology</td>
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<table>
<thead>
<tr>
<th>ECTS</th>
<th>Method of grading</th>
<th>Module level</th>
<th>Other prerequisites</th>
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<tbody>
<tr>
<td>3</td>
<td>numerical grade</td>
<td>undergraduate</td>
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**Contents**

This module component will acquaint students with the legal provisions and ethical guidelines for work in both the laboratory and clinical context, including clinical research, as well as in pharmaceutical, chemical and biotechnological production. The course will discuss the guidelines for safeguarding good scientific practice that are in place at American, European and German authorities, universities and organisations that are active in the abovementioned areas. In addition, the course will teach students basic rules regarding everyday lab procedures, e.g. designing experiments, the sensible use of checks, keeping lab notebooks, handling of reagents, storage and disposal, maintenance of lab equipment, handling of radioactivity; background knowledge on electrophoresis, centrifugation and light microscopy. In addition, the course will discuss fundamental cell culture techniques (eukaryotic and bacterial) as well as fundamental techniques for the molecular biological analysis of DNA, RNA and proteins.

**Intended learning outcomes**

Students have acquired an overview of general and specific rules and regulations governing scientific research, work in research labs, clinical trials as well as pharmaceutical and biotechnological production. They are familiar with the competent national and international regulatory bodies and standardisation authorities and, where necessary, are able to come up with answers to specific problems, referring to the relevant regulations. Students are able to adhere to existing guidelines, both during lab courses at university and in their future workplace. They are able to effectively structure research projects - from experiment design through to the publication of findings -, to design relevant follow-up experiments if initial experiments suggest certain findings, and to progress from hypotheses to ready-to-publish results.

**Courses**

<table>
<thead>
<tr>
<th>Type</th>
<th>Number of weekly contact hours</th>
<th>Language</th>
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<tbody>
<tr>
<td>V</td>
<td>2</td>
<td>German and/or English</td>
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**Method of assessment**

- written examination or practical examination (approx. 20 minutes)
- Language of assessment: German and/or English
- creditable for bonus

**Allocation of places**

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. 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 place 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 Biology (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 the same procedure. In this procedure, applicants who already ha-
ve successfully completed at least one other module component of the respective module will be given preferen-
tial 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 acade-
mic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they ha-
ve 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 according to this third ranking.
Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwi-
se by lot.
Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of pla-
ces): 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, places 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): lottery.
Should the module be used only in the Bachelor’s degree subject Biologie (Biology) with 180 ECTS credits, pla-
ces will be allocated according to the selection process of group 1.

Additional information
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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)