## Module description

<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
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<tr>
<td>Biophysics and Molecular Biotechnology (Practical Course and Seminar 1)</td>
<td>07-MS2BTF1-102-m01</td>
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### Module coordinator
holder of the Chair of Biotechnology and Biophysics

### Module offered by
Faculty of Biology

### ECTS | Method of grading | Only after succ. compl. of module(s) |
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<tbody>
<tr>
<td>10</td>
<td>numerical grade</td>
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### Duration | Module level | Other prerequisites |
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<tr>
<td>1 semester</td>
<td>graduate</td>
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### Contents
This practical course provides students with an insight into different biotechnological and biophysical topics and methods. Under expert guidance, students will perform selected experiments on the following topics: cellular and molecular biotechnology, nano and microsystems biotechnology, biomaterials and biosensors, high-resolution fluorescence microscopy, fluorescence spectroscopy, analysis and electromanipulation of cells.

### Intended learning outcomes
Students will have acquired a knowledge of fundamental biotechnological and biophysical methods and their applications that will enable them to independently review relevant literature. In addition, they will have become acquainted with or, where necessary, will be able to independently acquaint themselves with biophysical mechanisms. Students will have acquired practical experience performing experiments, using a variety of scientific tools. In the seminar, students will have acquired detailed theoretical knowledge on these experiments and will have delivered a short presentation (15 minutes) on one of the experiments they performed.

### Courses
S + P (no information on SWS (weekly contact hours) and course language available)

### Method of assessment
Students will be informed about the length and scope of the assessment prior to the course. Usually, one of the following options will be chosen: a) written examination (30 to 60 minutes, including multiple choice questions) or b) log (approx. 10 to 30 pages) or c) oral examination of one candidate each (30 to 60 minutes) or d) oral examination in groups of up to 3 candidates (approx. 30 to 60 minutes) or e) presentation (20 to 45 minutes)

### Allocation of places
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### Additional information
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### Referred to in LPO I (examination regulations for teaching-degree programmes)
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### Module appears in
- Master's degree (1 major) Biology (2011)
- Master's degree (1 major) Biology (2010)
- Master's degree (1 major) Biology (2014)