Module title: Teaching Physics in Primary and Secondary General School
Abbreviation: 11-P-FDDRI-092-m01

Module coordinator: holder of the Chair of Physics and its Didactics
Module offered by: Faculty of Physics and Astronomy

ECTS: 5
Method of grading: numerical grade
Duration: 1 semester
Module level: undergraduate
Other prerequisites: Prior completion of module 11-P-E recommended.

Contents:
Justification/legitimation of physics education, educational goals of physics, qualification models and educational standards: elementarisation and didactic reconstruction of physical contents, methods of physics education, media in physics education and their application to support learning. Interdisciplinary aspects of selected topics of biology, chemistry, geography and physics education, corresponding student preconceptions and typical learning difficulties, elementarisation and didactic reconstruction of scientific contents, based on specific contents of school classes.

Intended learning outcomes:
Knowledge of the legitimation and learning goals of Physics classes; knowledge of possibilities of elementarisation and of methods of Physics classes, knowledge of physical teaching and working material. Advanced qualitative understanding of school-relevant scientific topic areas; knowledge of common approaches, typical student preconceptions and special media on selected topics.

Courses:
(Einführung Fachdidaktik 2 (Introduction to Didactics 2)): V (1 weekly contact hour) + Ü (1 weekly contact hour), once a year (summer semester)
(Fächerübergreifender Unterricht (Teaching Interdisciplinary Contents)): S (2 weekly contact hours), once a year (summer semester)

Method of assessment:
This module has the following assessment components
1. Topics covered in lectures and exercises (Einführung Fachdidaktik 2 (Introduction to Didactics 2)): written examination (approx. 45 minutes) or term paper (approx. 8 pages) or presentation (approx. 30 minutes) or oral examination of one candidate each (approx. 10 minutes) or oral examination in groups (approx. 20 minutes, groups of 2 candidates).
2. Seminar (Fächerübergreifender Unterricht (Teaching Interdisciplinary Contents)): term paper (approx. 8 pages) or presentation (approx. 45 minutes) or log of a class (approx. 6 pages) or written examination (approx. 45 minutes) or oral examination of one candidate each (approx. 15 minutes) or oral examination in groups (approx. 30 minutes).

Students must register for assessment components 1 and 2 online (details to be announced). To pass this module, students must pass both assessment component 1 and assessment component 2.

Allocation of places:

Additional information:

Referred to in LPO I (examination regulations for teaching-degree programmes):
§ 36 (1) 7. Didaktik der Grundschule Physik
§ 38 (1) 1. Didaktik der Hauptschule Physik
§ 38 (1) 1. Didaktik der Mittelschule Physik
§ 53 (1) 2. Physik Fachdidaktik
§ 77 (1) 2. Physik Fachdidaktik
<table>
<thead>
<tr>
<th>Module appears in</th>
</tr>
</thead>
<tbody>
<tr>
<td>First state examination for the teaching degree Grundschule Pedagogy of Primary Education (2009)</td>
</tr>
<tr>
<td>First state examination for the teaching degree Grundschule Didactics in Physics (Primary School) (2009)</td>
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<tr>
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<tr>
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<tr>
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<tr>
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<tr>
<td>First state examination for the teaching degree Sonderpädagogik Didactics in Physics (Middle School) (2013)</td>
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<tr>
<td>First state examination for the teaching degree Sonderpädagogik Teaching at the German Mittelschule (2013)</td>
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