

Module title		Abbreviation
Practical Training in Student Lab / Demonstration Laboratory Course 2		11-P-LLL-DP2-172-m01
Module coordinator		Module offered by
holder of the Chair of Physics and its Didactics		Faculty of Physics and Astronomy
ECTS	Method of grading	Only after succ. compl. of module(s)
7	numerical grade	--
Duration	Module level	Other prerequisites
2 semester	undergraduate	--
Contents		
<p>The module gives an overview of applicable physical experiments that provide an introduction to science and can be performed in teaching-learning-laboratories (M!ND center). In these experiments, different working methods are employed. Advanced experiments covering topics of secondary level II physics lessons; advanced equipment knowledge of typical school equipment for use in experiments of higher complexity, e.g. Franck-Hertz experiment, Michelson interferometer; in-depth measurement technology; strategies for optimizing experimental set-ups and for systematic identification of sources of error during experiments; guidelines for presenting experiments; safety guidelines for experimentation in physics lessons.</p>		
Intended learning outcomes		
<p>The students know how to prepare and follow-up a visit in a teaching-learning-laboratory (M!ND-Center) and have gained an overview of current didactic research topics and further possibilities for development in the field of subject-didactic research. They are able to evaluate and assess the (affective) learning achievements of pupils, to hold scientific-propaedeutic classes, to positively influence the motivation of pupils in the subject of Physics and to raise their interest for current physical research questions. The students are able to select, set up or build pupils experiments in a target-oriented manner, and to supervise pupils while experimenting.</p>		
Courses (type, number of weekly contact hours, language — if other than German)		
P (3) + P (4)		
Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)		
<p>a) oral examination of one candidate each (approx. 10 minutes) or b) oral examination in groups (groups of 2, approx. 10 minutes per candidate) or c) term paper (6 to 12 pages) or d) portfolio (10 to 15 hours total) Language of assessment: German and/or English</p>		
Allocation of places		
--		
Additional information		
--		
Workload		
210 h		
Teaching cycle		
--		
Referred to in LPO I (examination regulations for teaching-degree programmes)		
§ 77 I Nr. 1 d)		
Module appears in		
First state examination for the teaching degree Gymnasium Physics (2018)		
First state examination for the teaching degree Gymnasium Physics (2020)		