

Module title		Abbreviation
Didactics in Biology I: Basics DG/DM		07-DGDM-FDBIO-1-152-m01
Module coordinator		Module offered by
head of group Didactics of Biology		Faculty of Biology
ECTS	Method of grading	Only after succ. compl. of module(s)
5	numerical grade	--
Duration	Module level	Other prerequisites
1 semester	undergraduate	--
Contents		
<p>The lecture <i>Einführung in die Fachdidaktik Biologie (Introduction to Biology Didactics)</i> will discuss central concepts and principles of biology lessons as well as methods in biology and teaching aids. Building on this knowledge, students will learn how to outline problem-based biology lessons. The course will discuss topics such as modes of interaction in the classroom, teaching methods and approaches, the definition of learning outcomes, out-of-classroom learning environments, topics and theories in biology didactics etc. The seminar <i>Biologieunterricht (The Biology Classroom)</i> will equip students with detailed knowledge on how to plan and design classes for the respective type of school. Students will prepare didactic analyses on topics from the curriculum. They will discuss general aspects of curriculum theory and, working in small teams, will translate the material to be taught, in a didactically reduced manner, into teaching sequences and lessons. At the same time, students will integrate different teaching methods and modes of interaction in the classroom (as well as teaching aids) into their lessons, keeping in mind what is and what is not possible in the respective type of school, and will deliver their lessons or parts of these in the seminar. Didactic aspects will be evaluated and discussed in class. There will be separate seminars for each type of school; please select the seminar for the school type for which you are pursuing a teaching degree. Using examples from the classroom, the seminar <i>Unterrichtsmittel (Teaching Aids)</i> will acquaint students with specific teaching aids (originals, preparations and media) for use in the biology classroom and will assess these with regard to the media literacy skills to be developed. The seminar will discuss both traditional aids used in the biology classroom (models, blackboard, OHP, transparencies, textbook and worksheets etc.) and modern aids (computer simulations, ppt presentations etc.). After having received a theoretical introduction to teaching aids, students will be arranged into small teams that will deliver lessons or individual phases of lessons on specific topics from the curriculum. They will focus on a teaching aid of their choice which will subsequently be assessed with regard to aspects of media didactics.</p>		
Intended learning outcomes		
<p>Familiarity with relevant aspects of biology didactics</p> <ul style="list-style-type: none"> • Ability to design lively biology lessons, using original objects and teaching aids. • Ability to use methods in biology in a way that promotes the learning processes of pupils. • Familiarity with both biology-specific and interdisciplinary topics from the curriculum for the respective type of school. • Ability to prepare scientific analyses on selected topics from the curriculum for the respective type of school and to subsequently present these topics in a manner that is tailored to the target group. • Ability to prepare didactic analyses on topics from the curriculum for the respective type of school. • Ability to translate, with the help of didactic analyses, selected topics from the curriculum into teaching sequences and lessons as well as to deliver these teaching sequences and lessons, applying problem-based and/or open teaching methods. • Knowledge of the fact that the term "teaching aids in the biology classroom" refers to originals, preparations and media. • Familiarity with a biology-specific, didactic definition of the term "media". • Overview of classifications of media, factors that influence the choice of media as well as the function of media. • Familiarity with the limitations and problems associated with the use of media in the classroom. • Practical skills using media of all kinds (hardware side). • Ability to independently prepare teaching aids. • Ability to use teaching aids in classroom situations in a way that is appropriate for pupils and the material taught. 		

- - Advantages and disadvantages of specific teaching aids; limitations associated with the use of media in the classroom.

Courses (type, number of weekly contact hours, language – if other than German)

V (2) + S (3)

Method of assessment (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus)

written examination (approx. 60 minutes)
creditable for bonus

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)

§ 36 I Nr. 7

§ 38 I Nr. 1

Module appears in

First state examination for the teaching degree Grundschule Didactics in Biology (Primary School) (2015)
First state examination for the teaching degree Sonderpädagogik Didactics in Biology (Middle School) (2015)
First state examination for the teaching degree Mittelschule Didactics in Biology (Middle School) (2015)
First state examination for the teaching degree Sonderpädagogik Didactics in Biology (Middle School) (2020 (Prüfungsordnungsversion 2015))
First state examination for the teaching degree Mittelschule Didactics in Biology (Middle School) (2020 (Prüfungsordnungsversion 2015))