Syllabus

Course Description

Course Title	Practice-oriented lessons for natural science for primary school teachers/kindergarten teachers (lab.)
Course Code	12485
Course Title Additional	
Scientific-Disciplinary Sector	BIOS-01/A
Language	German
Degree Course	5 year master degree in Primary Education - German section
Other Degree Courses (Loaned)	LM-85 bis Education Italian section LM-85 bis Education Ladin section
Lecturers	Dr. rer. nat. Andreas Declara, Andreas.Declara@unibz.it https://www.unibz.it/en/faculties/education/academic-staff/person/39593
Teaching Assistant	
Semester	Second semester
Course Year/s	Wahlfach/Optional course
CP	2
Teaching Hours	0
Lab Hours	20
Individual Study Hours	30
Planned Office Hours	6
Contents Summary	Full-day excursions on foot or by bike in the surroundings of Brixen to different habitats, preparation of a food ring and a herbarium in the laboratory or at home.
Course Topics	- Focus on zoology and botany in their significance for kindergarten and primary school and their application in kindergarten and primary school - Basics of outdoor biology and ecology in their significance for kindergarten and primary school and their application in kindergarten and primary school

	- Concrete application examples for the outdoor area (e.g. feeding ring...) - Concrete natural phenomena and observations as topics and focal points of didactic teaching - Local environmental protection and nature conservation as well as sustainable development in their pedagogical-didactic significance - Leading excursions - arousing interest - Teaching content on selected animals, plants and areas of the natural and cultural landscape - Encountering and recognising biocenoses and highlighting their educational and didactic importance for kindergarten and primary school - The conifers of our homeland, animals of the forest, biocenoses of local waters, metamorphosis in amphibians, holo- and hemimetabolism in insects
Keywords	Nature Sustainability Ecosystems Habitats Biodiversity Species diversity
Recommended Prerequisites	
Propaedeutic Courses	
Teaching Format	- Introductory lectures - Excursions to different habitats in the surroundings of Brixen: Brixen-Klausen-Vahrn, low mountain range of Brixen and Ploseberg (possible expenses for excursions will be paid by the students themselves) - Preparation of a food ring and a herbarium in the laboratory or at home
Mandatory Attendance	In accordance with the regulation
Specific Educational Objectives and Learning Outcomes	The students - are familiar with the basic principles of biology and ecology, can assess their significance for kindergarten and primary school and prepare content in a way that is appropriate for the target group - are familiar with the fundamentals and concepts of contemporary didactics of living nature and are able to transfer between general

	models and subject-specific application - are able to analyse relationships between humans, the biosphere and the cultural landscape and translate them into didactic concepts. - know the importance of environmental protection and sustainable development for kindergarten and primary school, can critically analyse these topics and implement them didactically. - are able to plan, implement, reflect on and evaluate didactic units on the topic of living nature. - are able to compare the framework guidelines for kindergarten and the framework guidelines for primary school and use them as a basis for planning their educational work and lessons. - are able to independently acquire subject-specific knowledge about living nature and have the necessary scientific foundations to utilise different didactic concepts with regard to the heterogeneous learning requirements of the children. - can place the children's questions about scientific phenomena of living nature at the centre of their educational and didactic work and help the children to answer their questions through exploratory or research-based learning. - can incorporate the children's (everyday) ideas into their planning as a starting point for "learning through research". Expected learning outcomes and competences: Knowledge and understanding Graduates know about the fundamental relationships between outdoor biology, ecology and limnology with a focus on zoology and botany, recognise natural phenomena and have understood them. Applying knowledge and understanding They can formulate arguments for their pedagogical and didactic actions and use them to substantiate their actions. They can apply this knowledge to prepare learning content in a way that is appropriate for the target group and to create suitable learning environments. Making judgements They can evaluate prepared/published teaching materials in terms

	of content and didactics and use them accordingly for their lessons and correctly assess, evaluate and reflect on new teaching situations. Communication You can formulate subject content, ideas, problems and solution strategies in a way that is appropriate to the target group and communicate them in a didactically appropriate manner. Learning strategies Based on the knowledge and skills acquired in the courses, they can independently acquire and, if necessary, deepen subject-specific and didactic content.
Specific Educational Objectives and Learning Outcomes (additional info.)	
Assessment	Practical written part: Preparation and description of the production of a herbarium and a food ring, writing of an excursion report Oral part: Recognising illustrative materials and a short presentation of what has been learned.
Evaluation Criteria	The assessment is based on the topics covered, the expected learning outcomes and the specific educational objectives in accordance with this syllabus
Required Readings	Autonome Provinz Bozen/Südtirol (2001): Lebensräume in Südtirol. Die Tierwelt, second edition; Bolzano. ISBN: 88-7014-424-0 Autonome Provinz Bozen/Südtirol (2001): Lebensräume in Südtirol. Die Pflanzenwelt, third edition; Bolzano. ISBN: 88-7014-341-4
Supplementary Readings	Duden (2009): Schülerduden Biologie. Das Fachlexikon von A-Z. Dudenverlag, 7th updated edition; Mannheim - Zurich. ISBN: 978-3-411-05427-
Further Information	
Sustainable Development Goals (SDGs)	Good health and well-being, Clean water and sanitation, Quality education