Module title			Abbreviation
Introduction to Elementary Number Theory (virtual course)			10-M-VHBZth-191-m01
Module coordinator		**Module offered by**	
Dean of Studies Mathematik (Mathematics)		Institute of Mathematics	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
3	(not) successfully completed	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	undergraduate	--	

Contents

The course gives a brief introduction to mathematical working techniques (propositional logic, sets, definitions, proofs), introduces the different number domains, discusses elementary divisibility properties of the integers (including modular arithmetics) and introduces continued fractions and their approximation properties.

Intended learning outcomes

The students get aquainted with the mathematical language, apply easy deduction techniques to elementary number theoretic questions, and get a first impression of the multifarious applications.

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

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

project (web-based, 15 to 20 hours)
Assessment offered: Once a year, winter semester
Other: E-Learning, Vhb

Allocation of places

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Additional information

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Workload

90 h

Teaching cycle

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

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Module appears in

First state examination for the teaching degree Gymnasium Mathematics (2019)