

<b>Module title</b>		<b>Abbreviation</b>
Numerical Mathematics 1		10-M-NM1-082-m01
<b>Module coordinator</b>		<b>Module offered by</b>
Dean of Studies Mathematik (Mathematics)		Institute of Mathematics
<b>ECTS</b>	<b>Method of grading</b>	<b>Only after succ. compl. of module(s)</b>
8	numerical grade	--
<b>Duration</b>	<b>Module level</b>	<b>Other prerequisites</b>
1 semester	undergraduate	Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew.
<b>Contents</b>		
Solution of systems of linear equations and curve fitting problems, nonlinear equations and systems of equations, interpolation with polynomials, splines and trigonometric functions, numerical integration.		
<b>Intended learning outcomes</b>		
The student is acquainted with the fundamental concepts and methods in numerical mathematics, applies them to practical problems and knows about their typical fields of application.		
<b>Courses</b> (type, number of weekly contact hours, language – if other than German)		
V + Ü (no information on SWS (weekly contact hours) and course language available)		
<b>Method of assessment</b> (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus)		
written examination (approx. 90 minutes); if announced by the lecturer, the written examination can be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups (groups of 2, approx. 30 minutes) Language of assessment: German, English if agreed upon with the examiner		
<b>Allocation of places</b>		
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<b>Additional information</b>		
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<b>Workload</b>		
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<b>Teaching cycle</b>		
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<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)		
§ 73 (1) 5. Mathematik Angewandte Mathematik		
<b>Module appears in</b>		
Bachelor' degree (1 major) Computer Science (2010) Bachelor' degree (1 major) Mathematics (2008) Bachelor' degree (1 major) Physics (2010) Bachelor' degree (1 major) Physics (2009) Bachelor' degree (1 major) Physics (2012)		

Bachelor' degree (1 major) Physics (2008)  
Bachelor' degree (1 major) Technology of Functional Materials (2009)  
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Bachelor' degree (1 major) Nanostructure Technology (2010)  
Bachelor' degree (1 major) Economathematics (2009)  
Bachelor' degree (1 major) Economathematics (2008)  
Bachelor' degree (1 major) Mathematical Physics (2009)  
Bachelor' degree (1 major) Computational Mathematics (2009)  
Bachelor' degree (1 major) Aerospace Computer Science (2009)  
Bachelor' degree (1 major) Aerospace Computer Science (2011)  
Master's degree (1 major) Physics (2010)  
Master's degree (1 major) Physics (2011)  
Master's degree (1 major) Technology of Functional Materials (2010)  
Master's degree (1 major) Technology of Functional Materials (2009)  
Master's degree (1 major) Nanostructure Technology (2011)  
Master's degree (1 major) Nanostructure Technology (2010)  
Master's degree (1 major) Functional Materials (2012)  
Bachelor's degree (1 major, 1 minor) Mathematics (Minor, 2008)  
First state examination for the teaching degree Gymnasium Mathematics (2009)