## Module title
Introduction to Partial Differential Equations for Mathematical Physics

### Module coordinator
Dean of Studies Mathematik (Mathematics)

### Module offered by
Institute of Mathematics

### ECTS Method of grading Only after succ. compl. of module(s)
10 numerical grade --

### Duration Module level Other prerequisites
1 semester undergraduate --

### Contents
Examples of partial differential equations and partial differential equations of first order, existence and uniqueness theorems, basic equations of mathematical physics, boundary value problems, maximum principle and Dirichlet problem.

### Intended learning outcomes
The student is acquainted with the fundamental concepts and methods in the theory of partial differential equations. He/she is able to apply these methods to practical problems.

### 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)

a) oral examination of one candidate each (15 to 30 minutes) or b) oral examination in groups of 2 candidates (10 to 15 minutes each)
Assessment will have reference to a topic in pure mathematics as agreed upon with the examiner. Each topic may only be selected as the subject of one examination in the sub-field Gesamtüberblick Mathematische Methoden (Overview Mathematical Methods) or in module group Ergänzung Mathematik (Supplementary Topics in Mathematics).
Assessment offered: In the semester in which the course is offered and in the subsequent semester
Language of assessment: German and/or English creditable for bonus

### Allocation of places
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### Additional information
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### Referred to in LPO I (examination regulations for teaching-degree programmes)
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### Module appears in
Bachelor’ degree (1 major) Mathematical Physics (2015)
Bachelor’ degree (1 major) Mathematical Physics (2016)