Module description

**Module title**
Advanced Analysis

**Abbreviation**
10-M-VAN-072-m01

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

**Module offered by**
Institute of Mathematics

**ECTS**
7

**Method of grading**
numerical grade

**Only after succ. compl. of module(s)**
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**Duration**
1 semester

**Module level**
undergraduate

**Other prerequisites**
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**Contents**
Lebesgue integral in several variables, including theorems on convergence and Fubini's theorem, $L^p$-spaces and elementary Fourier theory in $L^2$, Gauss's theorem.

**Intended learning outcomes**
The student is acquainted with advanced topics in analysis. Taking the example of the Lesbegue integral, he or she is able to understand the construction of a complex mathematical concept.

**Courses**
(V + Ü (no information on SWS (weekly contact hours) and course language available)

**Method of assessment**
a) written examination (approx. 90 minutes; usually chosen) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes)

**Allocation of places**
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**Additional information**
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**Referred to in LPO I**
(examination regulations for teaching-degree programmes)

**Module appears in**
Bachelor' degree (1 major) Mathematics (2007)