

MATH-206

**Analysis IV**

Ruf Matthias

<b>Cursus</b>	<b>Sem.</b>	<b>Type</b>
Physics	BA4	Obl.

Language of teaching	English
Credits	5
Session	Summer
Semester	Spring
Exam	Written
Workload	150h
Weeks	14
<b>Hours</b>	<b>5 weekly</b>
Courses	3 weekly
Exercises	2 weekly
<b>Number of positions</b>	

**Summary**

The goal of this course is to provide an introduction to the concepts and methods of complex analysis in one variable, Lebesgue integration, analysis in infinite dimensional vector spaces and operator theory

**Content**

- Basic theory of complex differentiable functions in one variable
- Lebesgue integral and Fourier transformation
- Elements of analysis in infinite dimensional vector spaces
- Introduction to the theory of linear operators

**Learning Outcomes**

By the end of the course, the student must be able to:

- Understand the concepts and methods taught in the course and during the exercise classes
- Apply those concepts and methods to analyze and solve problems related to the contents of the course

**Assessment methods**

Written final exam