

## Course Descriptions Bachelor 2018-2019

Course Title Analysis II  
 Course Code EBC1032  
 ECTS Credits 6,5  
 Assessment None  
 Period

Period	Start	End	Mon	Tue	Wed	Thu	Fri
4	4-2-2019	5-4-2019	X/E		X/E		
5	15-4-2019	7-6-2019	X/E		X/E		

Level Intermediate

Coordinator Mathias Staudigl For more information: [m.staudigl@maastrichtuniversity.nl](mailto:m.staudigl@maastrichtuniversity.nl)

Language of instruction English

Goals  
 Learn the concepts and techniques in the field of integral calculus that are prerequisite for 'probability theory', '(applied) statistics', 'mathematical economics' and 'operations research'.  
 Can check the topological properties of a subset of the plane.  
 Know how to prove that a function of two variables is continuous.  
 Be able to apply the Implicit Function of Theorem.  
 Know how to prove that a function of two variables has a directional derivative or is (totally) differentiable.  
 Learn to solve constrained and unconstrained optimisation problems.

Description Functions of more than one variable, series, multiple integrals, integral calculus of functions of one variable.

Literature Syllabus.

Prerequisites  
 - Differential calculus for functions of one variable (as, for instance, in the course Analysis 1).  
 - Elementary linear algebra (as, for instance, in the course Linear Algebra).  
 An advanced level of English.

Teaching methods Lecture / Assignment

Assessment methods Written Exam

Evaluation in previous academic year For the complete evaluation of this course please click <http://iwio-sbe.maastrichtuniversity.nl/rapporten.asp?referrer=codeUM>

This course belongs to the following programme / specialisation

Bachelor Econometrics and Operations Research      Year 1 Compulsory Courses