

# Real Analysis and Multivariable Calculus

In Cooperation with the GRADE Center GSEFM

Trainer



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## Objective

The GRADE Center GSEFM opens its „pre-semester courses“, held by advanced PhD candidates, to all PhD candidates registered at GRADE. These courses cover different topics.

## Description

1. Notions of Logic and Set Theory
  - Logical Connectives
  - Quantifiers
  - Sets and Functions
2. Sequences and Limits
  - Convergence
  - Limits
3. Functions of Several Variables
  - Functions Between Euclidean Spaces
  - Continuous Functions
4. Calculus of Several Variables
  - Total Derivative
  - Chain Rule
  - Gradients and Hessians

## Conditions

Participants are expected to have a solid undergraduate background in mathematics. Those missing some of this background are expected to have worked through the following reference prior to the beginning of the course:

*Chiang, A.C. and K. Wainwright (2005): Fundamental Methods of Mathematical Economics, Mc Graw-Hill Irwin.*

**The pre-semester courses, epidemiological situation permitting, will be held in in-person format.**



## Organizational Information

Language / Format	English / On campus
Target group	Doctoral Candidates from all faculties
Date	Wednesday-Friday, 14-16 September 2022, , 10:00 – 12:00 & 13:00 – 15:00 Monday, 19 September 2022, 10:00 – 12:00 & 13:00 – 15:00
Registration	<a href="#">For registration click here</a>