

Mathematisch-Naturwissenschaftliche Fakultät

**Fachbereich Mathematik** 

AB Geometrische Analysis, Differentialgeometrie und Relativitätstheorie

## Wintersemester 2016/17

# Teaching Mathematics A two-day course for doctoral candidates and postdocs

Dozent: JProf. Dr. Carla Cederbaum

Zeit: Tuesday, 21. February 2017 and Wednesday, 22. February 2017

Ort: Hörsaal N14

#### Contents

- introduction to pedagogy and didactics
- analysis of different teaching styles
- scientific foundation of and evidence based teaching
- teaching and learning
- target groups/different audiences
- diversity as a chance/problem
- self efficacy, agency
- problem based learning
- special aspects of learning mathematics
- teaching identity and individual strategies

## Description

Everyone has their own ideas about how to teach mathematics. You have probably encountered many different styles of teaching from the student's perspective, and maybe you have also had the opportunity of trying out some from the teacher's side. In this seminar, we will compare different approaches to teaching, find out which ones work (for you) and which ones do not, and discuss pitfalls and commonly made "mistakes". You will get to know some modern instruction methods and techniques relying on evidence based educational theory as we go along. Most of the seminar will be 'hands on' meaning that you will get to teach yourself, get feedback, try again and learn from the experience.

### Remarks

If there are no non-German speaking participants, the course can be held in German.

The number of participants is limited to 12.

Please apply to hilken@math.uni-tuebingen.de by Tuesday, 07. February 2017.