

## Part I

### Organizational Matters

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- ▶ Modul: IN2004
- ▶ Name: “Efficient Algorithms and Data Structures II”  
“Effiziente Algorithmen und Datenstrukturen II”
- ▶ ECTS: 8 Credit points
- ▶ Lectures:
  - ▶ 4 SWS  
Mon 12:15–13:45 (Room 00.13.009A)  
Fri 12:15–13:45 (Room 00.13.009A)
- ▶ Webpage: <http://www14.in.tum.de/lehre/2015SS/ea/>

### The Lecturer

- ▶ Harald Räche
- ▶ Email: [raecke@in.tum.de](mailto:raecke@in.tum.de)
- ▶ Room: 03.09.044
- ▶ Office hours: (per appointment)

### Tutorials

- ▶ Tutor:
  - ▶ Chintan Shah
  - ▶ [chintan.shah@tum.de](mailto:chintan.shah@tum.de)
  - ▶ Room: 03.09.059
  - ▶ per appointment
- ▶ Room: 03.11.018
- ▶ Time: Tue 16:15–17:45

## Assessment

- ▶ In order to pass the module you need to pass an exam.
- ▶ Exam:
  - ▶ 3 hours
  - ▶ Date will be announced shortly.
  - ▶ There are no resources allowed, apart from a hand-written piece of paper (A4).
  - ▶ Answers should be given in English, but German is also accepted.

## Assessment

- ▶ Assignment Sheets:
  - ▶ An assignment sheet is usually made available on Monday on the module webpage.
  - ▶ Solutions have to be handed in in the following week before the lecture on Monday.
  - ▶ You can hand in your solutions by putting them in the right folder in front of room 03.09.020.
  - ▶ Solutions have to be given in English.
  - ▶ Solutions will be discussed in the subsequent tutorial on Tuesday.
  - ▶ The first one will be out on Monday, 20 April.

## 1 Contents


Part 1: Linear Programming

Part 2: Approximation Algorithms

## 2 Literatur

-  V. Chvatal:  
*Linear Programming*,  
Freeman, 1983
-  R. Seidel:  
*Skript Optimierung*, 1996
-  D. Bertsimas and J.N. Tsitsiklis:  
*Introduction to Linear Optimization*,  
Athena Scientific, 1997
-  Vijay V. Vazirani:  
*Approximation Algorithms*,  
Springer 2001

 David P. Williamson and David B. Shmoys:  
*The Design of Approximation Algorithms*,  
Cambridge University Press 2011

 G. Ausiello, P. Crescenzi, G. Gambosi, V. Kann, A.  
Marchetti-Spaccamela, and M. Protasi:  
*Complexity and Approximation*,  
Springer, 1999