1 About the Course

SS 2017 B. Nebel, R. Mattmüller – Game Theory 3 / 18

About the Course

People

Lecturers

Prof. Dr. Bernhard Nebel
- email: nebel@informatik.uni-freiburg.de
- office: room 052-00-029

Dr. Robert Mattmüller
- email: mattmuel@informatik.uni-freiburg.de
- office: room 052-00-030

Exercises

Tim Schulte
- email: schultet@informatik.uni-freiburg.de
- office: room 052-00-044

Grigoris Mouratidis
- email: Grmouras@hotmail.com
### Time & Place

#### Lectures
- **time:** Monday 16:15-17:00, Wednesday 14:15-16:00
- **place:** building 101, seminar room 01-016
- **alternative time with more seats:** Monday 18:15-19:00, Wednesday 14:15-16:00, building 101, 00-036
- **alternative place:** Monday: Kinohörsaal, Wednesday: 00-036.

#### Exercises
- **time:** Monday 17:15-18:00
- **place:** building 101, seminar room 01-016
- perhaps alternative time or place

### Website

#### Course website
http://gki.informatik.uni-freiburg.de/teaching/ss17/gametheory/
- **main page:** course description
- **lecture page:** slides, lecture notes
- **exercise page:** assignments, software

### Teaching Materials: Books
- **Osborne & Rubinstein.**
  A Course in Game Theory.
  Main source for the first half of this course. Quite formal.
- **Osborne.**
  An Introduction to Game Theory.
  Similar content as Osborne & Rubinstein, but less formal.
- **Nisan, Roughgarden, Tardos, & Vazirani.**
  Algorithmic Game Theory.
  Main source for the second half of this course

### Teaching Materials: Lecture Notes and Slides
- lecture notes in English and German:
  - **en:** http://gki.informatik.uni-freiburg.de/teaching/ss17/gametheory/gametheory_en.pdf
  - **de:** http://gki.informatik.uni-freiburg.de/teaching/ss17/gametheory/gametheory_de.pdf
  (PDFs updated regularly)
- open LaTeX sources (read-only):
  [https://gkigit.informatik.uni-freiburg.de/teaching/gametheory/gametheory-lecturenotes/tree/master](https://gkigit.informatik.uni-freiburg.de/teaching/gametheory/gametheory-lecturenotes/tree/master)
  You may use and modify them. If you improve them, we are happy to include and acknowledge your contributions.
- slides available on course website
- additional resources: literature list on course website + ask us!
### Target Audience

**Students of Computer Science:**
- Master of Science, any year
- Bachelor of Science, ∼3rd year

**Other students:**
- advanced study period (∼4th year)

### Prerequisites

**Course prerequisites:**
- no required prerequisites
- some familiarity with mathematical notation and theoretical computer science is helpful, familiarity with Python 3 is assumed for the exercises.

### Credit Points & Exam

- 6 ECTS points
- special lecture in specialization field Cognitive Technical Systems
- oral exam of about 30 minutes for B.Sc. students
- written or oral exam for M.Sc. students (likely written)
Exercises

Successful participation (50% of points) prerequisite for exam admission.

Written assignments:
- handed out once a week
- due one week later, before the lecture
- discussed in the next exercise session
- may be solved in groups of two students ($2 \neq 3$)
- 8 points per exercise sheet

Didactic web-based experiments in game theory:
- See http://gametheory.tau.ac.il/.
- course number and class password will be sent by email
- experiments conducted intermittently (three to five times throughout course)
- about one week time to complete
- discussed in the next exercise session
- must be solved alone (not in groups)
- 4 points per set of experiments

Admission to Exam

- points can be earned for “reasonable” solutions to exercises and for participation in web-based experiments.
- at least 50% of points prerequisite for admission to final exam.

Plagiarism

What is plagiarism?
- passing off solutions as your own that are not based on your ideas (work of other students, Internet, books, ...)
- http://en.wikipedia.org/wiki/Plagiarism is a good intro

Consequence: no admission to the final exam.
- We may (!) be generous on first offense.
- Don’t tell us “We did the work together.”
- Don’t tell us “I did not know this was not allowed.”