

GAME THEORY, UEC-52803

0. Web page Web page <http://pvmouche.deds.nl/gametheory.html>. Of course, also accessible via BrightSpace.

1. Attention This course outline contains some general information on the course. There may be (minor) differences with information from other sources. For up-to-date information, especially about the organisation of the meetings, consult the web page or Brightspace (see 0 above) regularly.

2. Content of the course This course provides a short introduction to game theory. It consists out of two parts: non-cooperative game theory (first two weeks) and cooperative game theory (third week).

3. Target group The course is designed for all students interested in decision-making in strategic situations.

4. Starting level There is no required knowledge.

5. Coordinates Monday meetings: 14:00–16:20 in B78 (Leeuwenborch). Friday meetings: 14:00–16:20 in B71 (Leeuwenborch). We hope to have all meetings on campus.

6. Teaching method The language of instruction is English. Meetings consists of lectures and tutorials.

7. Study material 1. Compulsory: Slides.

2. Very recommended: K. Binmore, Game Theory, a Very Short Introduction, 2007, ISBN 978-0-19-921846-2.

8. Assessment and specification After successful completion of this course students are expected to be able to:

- a. have a first impression on the usefulness of game theory;
- b. understand the structure, basics and concepts of games in strategic form, games in extensive form and games in characteristic function form;
- c. should be able to apply these concepts to concrete games and to various real world problems.

There is a short exam and an assignment; the exam counts for 70% and the assignment for 30%. The mark for the exam should be ≥ 5.5 . The assignment may be conducted also with 2 or 3 people. For this assignment one can choose between 1. questions provided by the teachers; 2. a short essay in which one describes oneself a problem and set up and solve a game theoretic model.

Official resits concern only the exam. Assignments with a mark < 5 can be redone (one time) on request.

9. Lecturers Dr. P. v. Mouche (Leeuwenborch, room 0116, tel. 484265, email pierre.vanmouche@wur.nl).

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10. Important dates

- First meeting: Monday 14-02-2022, 14:00–16:20 in B78.
- Exam: Friday 11-03-2022, 13:30–15:15 in B68.