

## 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, 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 specific knowledge.

**5. Coordinates** Meetings are on Mondays and Fridays, 14:00–16:20 in B0040 (Atlas).

**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 various concrete games and to various (simple) real world problems.

There is a short exam (multiple choice) and an assignment; the exam counts for 70% and the assignment for 30%. The mark for the exam should be  $\geq 5.5$ . 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 a problem and set up and solve a game theoretic model for this problem.

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](mailto:pierre.vanmouche@wur.nl)).

Dr. H.-P. Weikard (Leeuwenborch, room 1118, tel. 482494, email [hans-peter.weikard@wur.nl](mailto:hans-peter.weikard@wur.nl)).

**10. Important dates**

- First meeting: Monday 20-02-2023, 14:00–16:20 in B0040.
- Exam: Friday 17-03-2023, 13:30–15:15 in B0041.