



# AH2207 Project in Game Theory

## 7.5 credits

Projektarbete i spelteori

This is a translation of the Swedish, legally binding, course syllabus.

### Establishment

Course syllabus for AH2207 valid from Spring 2011

### Grading scale

A, B, C, D, E, FX, F

### Education cycle

Second cycle

### Main field of study

The Built Environment

### Specific prerequisites

- At least 180 credits Academic studies in Engineering, Science, Economics or Planning
- Documented proficiency in English B or equivalent (TOEFL, IELTS e.g).
- AH2205 Game Theory or equivalent

### Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

## Intended learning outcomes

After this course, you should be able to

- formulate an applied (or theoretical) problem in game theoretical terms
- analyse the game theoretical problem, using game theoretical solution concepts
- choose and critically evaluate a solution concept (if appropriate)
- design and implement experiments (if appropriate)      program algorithms and implement computer simulations (if appropriate)
- independently search and find relevant literature-      present the results both orally, and  
in a written report of good quality

## Course contents

Game theory is used in many different disciplines, such as decision theory, Economics, Political Science, Marketing, Transport and Computer Science. This course gives you the opportunity to study a theoretical or applied problem in a game theoretical context. This course is given as an individual project, and includes researching different solution concepts, but also learning in games, convergence etc. An important part of this course is the technical approach, where either mathematical tools (such as stochastic approximation) and/or computer simulations are crucial. Designing and implementing experiments (where subjects participate in a game) may be required. Project planning and presentation of results are also integrated parts of this course.

## Examination

- PRO1 - Project, 7.5 credits, grading scale: A, B, C, D, E, FX, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

If the course is discontinued, students may request to be examined during the following two academic years.

## Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.