Lecture plan

ENM140, Game theory and rationality 2018

**Week 1**

**Monday 5 November 10:00–11:45**

Course overview. Agent-based modelling as a motivation for the course. Discussion around a complex game.

**Wednesday 7 November 10:00–11:45**


**Wednesday 7 November 13:15–15:00**

Basic game-theoretic concepts continued: solving examples of games.

**Week 2**

**Monday 12 November 10:00–11:45**

Repeated games, Folk-Theorem, Backward induction.
Rules for the computer strategies tournament (Assignment 2).

**Wednesday 14 November 10:00–11:45**

Examples on games in economics: duopoly, monopoly.

**Wednesday 14 November 13:15–15:00**

Discussion based on Assignment 1: examples of games as possible seeds for projects.

Part 1 of a lecture on evolutionary game theory and spatial games. Evolutionarily stable strategies. Model example: strategy evolution in the infinitely repeated Prisoner’s Dilemma. Spatial games: how do local interactions affect the evolution of strategies compared to a situation where all interact with all?
Week 3

Monday 19 November 10:00–11:45
Examples class: Solutions to an old exam.

Wednesday 21 November 10:00–11:45
Part 2 of a lecture on evolutionary game theory and spatial games.

Wednesday 21 November 13:15–15:00
Computer strategies tournament; the result of Assignment 2 is shown and discussed by running the tournament with the submitted strategies.

Project workshop: formation of groups and project ideas need to be done during this week. During this hour you may form and/or discuss within your groups, and the teachers will be available for questions.

Week 4

Monday 26 November 10:00–11:45
Midterm exam.

Wednesday 28 November 10:00–11:45
Guest lecture: Experimental economics.
Peter Martinsson, Professor, Behavioural Economics, University of Gothenburg.

Wednesday 28 November 13:15–15:00
Short presentations and discussion of project ideas (5+5 min/group). (We divide the group and use two lecture rooms for this.)

Week 5

Monday 3 December 10:00–11:45
Hosted by Erik Sterner, one of the original developers of this course.

1. Example seminar: Erik presents one of his research projects in a form that serves as an example for how you may organise your student-led seminar: “Agent-based model for harvesting of spatially distributed resources”.
2. Lecture/discussion on how to make the best of peer feedback.

**Wednesday 5 December 10:00–11:45**

Guest lecture: Limits to syntactic models of rationality.

Rasmus Einarsson, PhD student, Physical Resource Theory, Chalmers.

**Wednesday 5 December 13:15–15:00**

Student-led seminar by group 1
Student-led seminar by group 2

**Week 6**

**Monday 10 December 10:00–11:45**

Student-led seminar by group 3
Student-led seminar by group 4

**Wednesday 12 December 10:00–11:45**

Student-led seminar by group 5
Student-led seminar by group 6

**Wednesday 12 December 13:15–15:00**

Student-led seminar by group 7
Student-led seminar by group 8

**Week 7**

**Monday 17 December 10:00–11:45**

Student-led seminar by group 9
Student-led seminar by group 10

**Wednesday 19 December 10:00–11:45**

Presentations of preliminary project results

**Wednesday 19 December 13:15–15:00**

Presentations of preliminary project results