# Student-led seminars

### ENM140, Game theory and rationality 2017

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#### 1 Overview

A series of student-led seminars make up a substantial part of the course. Each student will lead a 45-minute seminar together with a group of 2-3 other students.

You will have to do the following:

- Join one of the seminar groups on Ping Pong.
- Decide on a topic.
- Collect some literature on the topic that the other students should read before the seminar.
- Write a reading guide for your fellow students with a list of pages to read and a couple of questions to be further discussed at the seminar.
- Lead the seminar.

### 2 Detailed instructions

### 2.1 Join a seminar group

The seminar groups are the same as the project groups. All students must sign up in a group no later than Wednesday 15 November, 18:00. To sign up, form a group of **three** 

students and send an email to Rasmus with your names, CIDs and email addresses. Groups may in exceptional cases consist of two or four students. If you want or need to be two or four in a group, discuss this with Rasmus or Kristian in person or by sending an email.

#### 2.2 Decide on a topic

Discuss in your seminar group and try to find a branch of game theory that interests you. Some ideas may be found in the Dropbox folder. Of course, you may also find ideas elsewhere, e.g. at the library, on the Internet, or somewhere else. Just make sure that you choose a topic that has a clear connection to game theory and that you can find interesting literature about.

We recommend that you briefly discuss your seminar idea with one of the teachers before making a final decision. Please send an email to Rasmus (rasmus.einarsson[at]chalmers.se) or ask any of us in a break in class. The final decision is up to you, but we might be able to give you useful advice.

### 2.3 Prepare a reading guide

Discuss your topic in the group. Read some literature on the topic. Search at the library, on Google Scholar, etc. Try to explain the articles you read to each other; make sure you have a common understanding of what they mean. But don't try to read everything you find – in many subtopics of game theory there is enough material to build an entire course!

When you feel that you have an overview of the topic, pick out at least two scientific articles, book chapters, or equivalent, that the other students have to read before the seminar.

Write a reading guide for the other students. If the articles/chapters are long, it might make sense that you pick out a subset of the pages that are compulsory reading. In the reading guide, also note down guiding questions that may help the reader to get "on the right track" for your seminar, and also note down specific questions that you will bring up for discussion at the seminar.

When the reading guide is done, please let it rest for a day or two, and then read it again. Imagine that you did not write it, and that you were supposed to take part in the seminar. Then improve the reading guide until you can answer yes to all these questions:

- Is the reading guide understandable?
- Is it clear what the seminar will focus on?
- Is it absolutely crystal clear what to read?
- Is it clear what other preparations, if any, that have to be done before the seminar?

Finally, submit the following things by email to Rasmus:

- The literature to read before the seminar (as PDF files).
- Your reading guide (as a PDF file).

When you have submitted the literature and reading guide, we will make it available for everyone in the Dropbox folder as soon as possible.

#### 2.4 Lead the seminar

First of all, remember that the seminar can both be fun and a very good learning opportunity. It is up to you to make that happen.

You will lead a seminar with all the other students as participants. This does not have to be hard, but it will require some preparations and careful time management.

The seminar is 45 minutes long. It is OK if you are done after 40 minutes, but it should not be much shorter than that.

Everyone must read the literature according to your reading guide before the seminar, so you should assume that they have done so. But also remember that you are probably the group who knows most about this topic, so help the other students to understand and remember what was in the literature.

The seminar only has two compulsory components:

- An introduction where you, the seminar leaders, motivate and briefly describe your chosen topic. This should take some 10–15 minutes, but not much more. The seminar should primarily be a seminar, not a lecture! Some guiding questions that might help your planning: What is the seminar about? Why is this an important or interesting topic? What are some applications of this branch of game theory? What are the main take-away messages in the literature that everyone has read? During this introduction it is also possible that you invite questions from the other students, for example if there is anything specific they did not understand in the literature.
- At the end of the seminar, organize an evaluation of your seminar, to learn what was good and not so good about the seminar. We recommend that you prepare a one-page form for written feedback for everyone to fill out. This way, you will probably get the best and most honest feedback. But in addition, or as an alternative, you may evaluate the seminar by having a discussion with the whole group about what you learned, and about what was good and not so good about the seminar. The evaluation should take around 5 minutes to complete.

The remaining 25–30 minutes of the seminar is organized according to your taste. Some **suggestions of components** that you may use:

• We strongly recommend that you play some game relevant to your topic, where some or all the students (including or excluding yourselves) participates. If possible,

organize a game where everyone can participate. This may be a fun and efficient way to understand how the game works, and what sort of strategies look reasonable to the players.

- If you play a game, make sure that you give some room for comments and reflections on it. What happened? Why? What did you learn from it? Remember to apply game theoretic concepts as much as possible when discussing the game.
- You may break the class into subgroups for discussion, perhaps with 3-6 people in each group. This is a nice way of giving everyone the opportunity to speak.
- You may also have one or more "plenary" discussions, perhaps to summarize the results of discussions in subgroups.

## 3 Grading

The seminars give up to 8 points. We consider the following dimensions:

- The relevance of your seminar topic is graded with 0–2 points. Your seminar topic may be relevant primarily in two ways: (1) for the field of game theory as such, e.g., if it is a major contribution (old or new) to the field of game theory, or (2) because it speaks to a societal issue. Your preparation materials and the seminar itself should help to demonstrate or explain the relevance of the topic. If you are in doubt about your topic, please discuss with Kristian or Rasmus before making your final decision.
- Your preparation materials are graded with 0–3 points. The preparation materials should be comprehensible and relevant for the audience (your classmates) and should prepare them well for an interesting seminar. It must present an opportunity for your classmates to learn something new, and thus it must not be too difficult or too easy.
- The actual seminar is graded with 0–3 points. We try to give an overall score reflecting, among other things, the following: Is your seminar comprehensible? Is the level and the pace of the seminar right for the audience? Are there significant learning opportunities?