# Information Economics, Fall 2013
# Final Project

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## 1 General information

1. For the final project, students need to apply what they learn in this course to write a research paper for a self-selected topic.

2. There is no restriction on the research topic and scope. However, to make sure that your topic is "good", i.e., challenging enough while doable, you are strongly encouraged to discuss with me about your project.

3. Students may either do an *individual* project or form a team with *two* students to do a group project. In other words, each paper should be written by either one or two students. Group projects will be expected to achieve a *higher standard* than individual projects.

4. The following two types of students should do individual projects:

   (a) Graduate students *in the instructor's lab*.
   (b) *Doctoral* students.

   However, if two students of the above types really have a strong reason to do a group project, they may try to get the instructor's permission for doing so.[1]

5. Each team (with one or two students) needs to submit *two reports* and give *two presentations*:

   (a) One report and one presentation for the proposal.
   (b) One report and one presentation for the project.

   Students need to make *slides* for their proposal and project presentations. Reports and slides should be submitted *electronically* by sending the files to the instructor's e-mail box. Detailed instructions for the reports and presentations are provided below.

6. *Important dates*:

   (a) Team formation and date selection:
      i. Students should inform the instructor about team formation by sending an e-mail to the instructor with the names and IDs of the (one or two) students in the team.
      ii. Deadline: 23:59pm, November 24, 2012.
      iii. Students who do not inform the instructor about team formation by the deadline will do individual projects.
      iv. One may also specify her preference about the date for presenting the final project. If too many teams select the same date, the allocation will be determined randomly.

   (b) Proposal:
      i. Presentation: in class, December 2, 2012.
      ii. Slides due time: 8:00am, December 2, 2012.
      iii. Reports due time: 23:59pm, December 2, 2012.

   (c) Project:
      i. Presentation: in class, December 30, 2012 and January 6, 2012.
      ii. Slides due time: 8:00am, the day of your presentation.
      iii. Reports due time: 23:59pm, the day of your presentation.

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[1]Please note that doing an individual project does not result in a disadvantage of getting good grades because group projects are expected to be better than individual projects.

# 2    Proposal

1. Each team needs to write a proposal to plan for the final project. In the proposal, one should describe the problem she wants to study. First, the motivation and background of the problem should be introduced. She should emphasize why the problem is interesting, i.e., challenging and important. Real-world examples, if there is any, are particularly welcome to motivate your study.

2. The problem should have the flavor of decentralized decision making, information asymmetry, or both. Though you do not need to provide a complete model for your problem, you should identify where in your problem people make decisions in a decentralized manner with, if any, asymmetric information.

3. Please be aware that game-theoretic models and/or the principal-agent model should eventually be applied to analyze the problem.

4. In the instructor's expectation, the proposal should contain at least two sections: "introduction" for describing the problem, and "expected results" for reasonably guessing outcomes of your problem. If you have it, you may include a tentative model to precisely describe your model. This allows you and the instructor to better predict whether the project is doable. Nevertheless, the model part is optional.

5. To describe your problem with enough details, it is generally expected that the proposal should be no fewer than two pages, with reasonable font size and line spacing. However, there is no restriction on the format and length.

6. Each team needs to do a presentation to tell the class your research ideas. The presentation should be given with slides. The length of each presentation will be determined after the number of teams are fixed. Related information will be announced in class on November 25, 2013.

# 3    Project

1. Each team should write a research paper as their final project. In the paper, one should introduce the problem, list related works, formulate the model that describes the problem, analyze the model to find equilibria, and finally make interpretations about the solutions.

2. As you are allowed to modify your problem after you get feedback about your proposal, your problem needs not to be completely identical with that in the proposal. In the most extreme case, you may study a completely different problem.

3. You are allowed to use knowledge you learn outside this course. However, somewhere you must apply what you learn in this course.

4. The solution technique needs not to be hard. For example, you may simply apply the standard way of solving the two-type model to solve your problem. You are not expected to develop new methodology; instead, you are expected to study new problems.

5. Please do not forget to do a literature review for your project. You do not need to read 100 papers before you write your paper. However, you need to provide a list of roughly five to ten papers that address similar issues as yours. More importantly, you need to contrast your paper with theirs and specify what is new in your paper.

6. The main reason for doing this project is to apply the techniques taught in this course to analyze a problem and draw insights and provide explanations. Therefore, please do not forget to explain the implications of your solutions after you do a bunch of calculations.

7. There is no page limit for the project report.

8. Each team needs to do a presentation for the final project. The presentation should be given with slides. The length of each presentation will be determined after the number of teams are fixed. Related information will be announced in class on November 25, 2012.

# 4  Grading and others

1. The project will be graded with the following grades breakdown:

   (a) 10% for proposal report.

   (b) 10% for proposal presentation.

   (c) 40% for project quality, including the selection of the topic, the completeness of the analysis, and the contribution of the findings.

   (d) 20% for project report.

   (e) 20% for project presentation.

2. You may write your report in English or Chinese, though English is preferred. If you plan to write your report in English, please try your best to minimize grammatical errors and maximize the readability of your report. Actually the same thing also applies to reports written in Chinese.

3. In any case, please **_type_** your report (with computers) instead of **_writing_** your report (with hands).

4. You may do your presentations in English or Chinese, though English is preferred.

5. As a researcher, you should write professional reports. Some general suggestions for formatting your report can be found in the accompanied file "suggestions for formatting your reports" on the course website.