

# Advanced Microeconomics (A)

## (Advanced Contract Theory)

### Syllabus

Mikhail Drugov  
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Contract theory is extremely rich and applicable to a vast variety of topics, from self-management to sovereign debt. The goal of the course is, building on already familiar concepts of adverse selection and moral hazard, expose students to the main ideas and classes of models in modern contract theory. In other words, it is to equip students with building blocks that they can directly use in their research.

In the first part of the course we will study standard dynamic models of moral hazard and adverse selection and see the effects brought about by the dynamics itself and by the imperfect commitment. In the second and third parts of the course we will see several models (not necessarily dynamic) illustrating various important ideas in contract theory.

We will use mainly two books *The Theory of Contracts* by Jean-Jacques Laffont and David Martimort (2002) and *Contract Theory* by Patrick Bolton and Matthias Dewatripont (2005) and also original articles.

- Part I

- Dynamic adverse selection with and without commitment. Dynamic bargaining under asymmetric information. Coase conjecture [4 lectures]
  - \* LM ch. 8-9, BD ch. 9.
  - \* J-J. Laffont and J. Tirole (1990): Adverse Selection and Renegotiation in Procurement. *Review of Economic Studies*, 57(4), 597-625.
  - \* O. Hart and J. Tirole (1988): Contract Renegotiation and Coasian Dynamics. *Review of Economic Studies*, 55(4), 509-540.
- Dynamic moral hazard with and without commitment [2 lectures]
  - \* LM ch. 8, BD ch. 10.
  - \* P-A. Chiappori, I. Macho, P. Rey and B. Salanié (1994): Repeated moral hazard: The role of memory, commitment, and the access to credit markets, *European Economic Review*, 38(8), 1527-1553.

- Part II

- Multitasking [1 lecture]
  - \* BD ch. 6.

- \* B. Holmstrom and P. Milgrom (1991): Multitask principal-agent analysis: Incentive contracts, asset ownership and job design. *Journal of Law, Economics and Organization* 7: 24-51.
- Implicit incentives (career concerns and relational contracts) [2 lectures]
  - \* BD ch. 10.
  - \* B. Holmstrom (1999): Managerial incentive problems: A dynamic perspective. *Review of Economic Studies*. 66(1): 169-182.
  - \* G. Baker, R. Gibbons and K. Murphy (1994): Subjective performance measures in optimal Incentive contracts. *Quarterly Journal of Economics* 109(4): 1125-1156.
  - \* J. Levin (2003): Relational incentive contracts. *American Economic Review* 93(3): 835-857.
- Certifiable (verifiable) information [2 lectures]
  - \* BD ch. 5.
  - \* P. Milgrom (1981): Good news and bad news: representation theorems and applications. *Bell Journal of Economics* 12(2): 380–391.
  - \* R. Townsend (1979): Optimal contracts and competitive markets with costly state verification. *Journal of Economic Theory* 21(2): 265–293.
- Theory of the firm and incomplete contracts [1 lecture]
  - \* BD ch. 11-12.
  - \* O. Hart and J. Moore (1990): Property rights and the nature of the firm. *Journal of Political Economy* 98: 1119-58.
  - \* B. Holmstrom and P. Milgrom (1994): The firm as an incentive system. *American Economic Review* 84(4): 972-991.
  - \* M. Whinston (2003): On the transaction cost determinants of vertical integration. *Journal of Law Economics and Organization* 19(1): 1-23.

- Part III

- Student presentations [2-3 lectures]
  - \* Each student will be given one paper to present and another one to discuss. All the papers will be recently published or working papers so that the students are exposed to the current research frontier. The exact list of papers will be decided later (students can also make suggestions based on their research interests).

### Grading

The grade will be based on the final exam, several homeworks and class presentations. The exact parameters of the grading will be decided later.