

**Economic Theory III**  
**B8209. Spring 2011**  
**Columbia Business School**

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**Description:**

Economic Theory III is the third part of the economic theory sequence. The focus of this class is on the economics of information: how to model competitive markets and how to design contracts in the face of asymmetric information. Topics include: adverse selection, screening, signalling and moral hazard. The class of extensive games with imperfect information will be also presented.

**Textbook:**

The main textbook is Andreu Mas-Colell, Michael D. Whinston and Jerry R. Green, *Microeconomic Theory*, Oxford University Press, 1995 (MWG)

For the topic of Extensive Games with Imperfect Information, I will follow Martin J. Osborne, *An Introduction to Game Theory*, Oxford University Press, 2004. Other useful textbooks are:

Patrick Bolton and Mathias Dewatripont, *Contract Theory*, MIT Press, 2005.

Bernard Salanié, *The Economics of Contracts: A Primer*, MIT Press, 1997.

**Outline and References:**

- **Topic 0. Surveys**

Optional readings:

- Stiglitz, J.E. (2000), "The Contributions of the Economics of Information to Twentieth Century Economics," *Quarterly Journal of Economics*, 115, 1441-78.
- Stiglitz, J.E. (2000), "Information and the Change in the Paradigm in Economics," *American Economic Review*, 92, 460-501.
- Hart, O.D. and Holmstrom (1987), "The Theory of Contracts," in T. Bewley, ed., *Advances of economic theory: Fifth World Congress*, Cambridge: Cambridge University Press, 71-155.

- **Topic 1. Asymmetric information and adverse selection.**

MWG, chapter 13.B

Optional readings:

- Akerlof, G. (1970), "The market for "lemons": Quality uncertainty and the market mechanism," *Quarterly Journal of Economics*, 84 488-500.

- **Topic 2. Competitive Screening.**

MWG, chapter 13.C

Optional readings:

- Rothschild, M. and J. Stiglitz (1976), "Equilibrium in competitive insurance market: An essay on the economics of imperfect information," *Quarterly Journal of Economics*, 90, 629-649.
- Wilson, C. (1977), "A model of insurance markets with incomplete information," *Journal of Economic Theory*, 16, 167-207.

**Topic 3. Monopolistic Screening**

MWG, chapter 14.C

Optional readings:

- Mussa, M. and S. Rosen (1978), "Monopoly and Product Quality," *Journal of Economic Theory*, 18, 301-317.
- Maskin, E. and J. Riley (1984), "Monopoly with Incomplete Information", *Rand Journal of Economics*, 15, 171-196.

**Topic 4. Extensive Form Games with Imperfect Information**

Osborne, chapter 10

**Topic 5. Signaling**

MWG, chapter 13.C and appendix

Optional readings:

- Spence, M. (1973), "Job market signaling", *Quarterly Journal of Economics*, 87, 355-374.
- Cho, I-K., and D. M. Kreps (1987), "Signaling games and stable equilibria," *Quarterly Journal of Economics*, 102, 179-221.

**Topic 6. Moral Hazard**

MWG, chapter 14.B

Optional readings:

- Holmstrom, B. (1979), "Moral Hazard and Observability", *Bell Journal of Economics*, 10, 74-91.
- Grossman, S. and O. Hart (1983), "An analysis of the Principal-Agent Problem," *Econometrica*, 51, 7-45.