Contract theory EC307.01
Syllabus Spring 2001

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In the microeconomic theory course, you learnt about supply and demand, market-clearing prices, market efficiency, welfare, and more. The concepts covered in the course will enable you to understand certain market inefficiencies and aspects of the organizational design of economic activities, which may be traced to informational asymmetries. As in the microeconomics course, ideas will be developed using models (graphical and mathematical).

Texts
The required textbook is The Economics of Information, by Ian Molho (Blackwell Publishers, 1997). Additional required readings will be distributed during the course.

Prerequisites
Microeconomic theory (EC201 or EC203) and calculus.

Exams, problem sets and grading
There will be one mid-term exam in class (the date will be announced at least three weeks in advance), and one final exam (scheduled on May 10 at 12.30). Each exam will count for 35% of the final grade (the final exam is not cumulative). The remaining 30% will be determined by your grades on problem sets. Late problem sets will not be accepted, and no make-up exams will be given.

Note:
Although you may discuss problem sets with others, the work you hand in should be yours alone. Solutions that are too similar will get a low grade.

Office hours
Wednesdays 1.30-4.30, and by appointment.

Preliminary Outline

I. Introduction
   A. Review of microeconomic theory
   B. Probability distributions and expected utility — Appendix
   C. Introducing informational asymmetries — Ch. 1

II. Adverse selection
   A. The market for lemons — ①, Ch. 2
   B. Experimental and empirical evidence — Ch. 4

① Akerlof, G.A. (1970) "The Market for 'Lemons': Quality Uncertainty and the Market Mechanism," *Quarterly Journal of Economics*, 84: 488-500.

III. Extracting information (1): Signalling

A.	Bayes' rule	Appendix
B.	A model of signalling	②, Ch. 5
C.	Application: advertising	③
D.	Experimental and empirical evidence	Ch. 8

② Spence, M. (1973) "Job Market Signaling," *Quarterly Journal of Economics*, 87: 355-374.

③ Nelson, P. (1974) "Advertising as Information," *The Journal of Political Economy*, Volume 82, Issue 4, 729-754.

IV. Extracting information (2): Screening

A.	A model of screening	④, Ch. 6

④ Rothschild, M. and J. Stiglitz (1976) "Equilibrium in Competitive Insurance Markets: An Essay on the Economics of Imperfect Information," *Quarterly Journal of Economics*, 90:629-649.

V. Extracting information (3): Mechanism design

A.	The revelation principle	Ch. 13, p. 188-191
B.	Second-degree price discrimination	⑤
C.	Auction design	Ch. 14

⑤ Wilson, R. (1993) *Nonlinear Pricing*. Oxford: Oxford University Press. Ch. 1 and 2.

VI. Moral hazard

A.	The shareholders-manager relation	Ch. 9
B.	The principal-agent model	Ch. 10
C.	Moral hazard in insurance	

Stiglitz, J.E. (1991) "Symposium on Organizations and Economics," *Journal of Economic Perspectives*, 5: 15-24.

Simon, H.A. (1991) "Organization and Markets," *Journal of Economic Perspectives*, 5: 25-44.

Sappington, D.E.M. (1991) "Incentives in Principal-Agent Relationships," *Journal of Economic Perspectives*, 5: 45-66.