

Games, Information and Contract Theory

Detailed List of Topics covered in class

Instructors

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This short document details the paragraphs covering the topics discussed in class.

Chapter 1.

- Normal-Form Game: par 1.1A;
- Iterated Elimination of Strictly Dominated Strategies: par 1.1B;
- Nash Equilibrium: par 1.1C; appendix 1.1C (definitions only);
- Cournot Duopoly: par 1.2A;
- Bertrand Duopoly: par 1.2B + lecture notes on homogeneous goods;
- Problem of the Commons: par 1.2D (also on Problem Set 1);
- Mixed Strategies: par 1.3A;
- Existence of NE: par 1.3B (Head or Tail and Battle of Sexes + Nash Theorem)

Chapter 2.

- Backwards Induction: par 2.1A;
- Stackelberg Duopoly: par 2.1B;
- Subgame Perfection: par 2.2A;
- Two-stages Repeated Games: par 2.3A;

- Infinitely Repeated Games: par 2.3B;
- Collusion in Cournot: par 2.3C (up to page 103);
- Extensive-Form Representation: par 2.4A (but recall that, differently from the book, we define an *information set* as the set of decision nodes in which the player has the same information about what happened in the previous stages of the game).
- Subgame-perfect NE: par 2.4B;

Chapter 3.

- Cournot Duopoly with Imperfect Information: par 3.1A;
- Normal-form Representation of Static Bayesian Games: par 3.1B;
- Definition of Bayesian NE: par 3.1C;

Chapter 4.

- Introduction to Perfect Bayesian Equilibrium: par 4.1.