Intended learning objectives

Normal form games of complete information

- The student should be able to
  - Describe a situation as a normal form game and find the appertaining bi-matrix
  - Explain the concept of a mixed and dominated strategy
  - Use the method of iterative elimination of dominated strategies
  - Explain a Nash equilibrium and solve in a concrete game
  - Explain and apply the general existence theorem

Normal form games of incomplete information

- The student should be able to
  - Determine whether a situation is characterized by complete or incomplete information
  - Describe a situation as a Bayesian game
  - Define and explain a Bayesian Nash equilibrium
  - Solve for a Bayesian Nash equilibrium in a concrete game

Extensive form games with complete and perfect information

- The student should be able to
  - To describe a situation as an Extensive form game and the appertaining game tree
  - To compute the appertaining normal form representation
  - To define and explain a Subgame perfect Nash equilibrium
  - To solve for a Subgame perfect Nash equilibrium in a concrete game
  - To explain the relation between Subgame perfect Nash equilibrium, backward induction and the one-stage-deviation principle
  - To apply the Subgame perfect Nash equilibrium in repeated games
  - To explain and apply the Folk-theorem

Market power

- The student should be able to
  - To explain the difference between Bertrand and Cournot competition
  - To explain and show Bertrand's paradox
  - To find the price markup in a Cournot model
  - To perform comparative statics in a Cournot model
  - To show that cartels can be formed in a specific model

Adverse selection

- The student should be able to
  - To account for the concept of adverse selection

- To recognize whenever a situation involves the problem of adverse selection in a concrete model
- To suggest and apply a solution using the screening mechanism

Moral hazard

- The student should be able to
  - To account for the concept of moral hazard
  - To show the problem of moral hazard in a concrete model

Externalities

- The student should be able to
  - To explain the concepts of bilateral and multilateral externality
  - To solve a specific model for bilateral externalities
  - To suggest and test solutions for a bilateral externality under complete and incomplete information