Syllabus

Course: Microeconomics III
Professor:

2018 THIRD QUARTER

PROGRAM

- This is the third part in the sequence in Microeconomic Theory for the MA and PhD program. This course provides an introduction to game theory and information economics.

BIBLIOGRAPHY

- Recommended textbooks:
  - Andreu Mas-Collel, Michael D. Whinston and Jerry Green, Microeconomic Theory (Oxford University Press, 1995).
  - Other related texts that might be useful:
    - Patrick Bolton and Matthias Dewatripont, Contract Theory (MIT Press, 2005)
    - Drew Fudenberg and Jean Tirole, Game Theory (MIT Press, 1991)
    - George J. Mailath and Larry Samuelson, Repeated Games and Reputations (Oxford University Press, 2006)
    - Martin J. Osborne and Ariel Rubinstein, A Course in Game Theory (MIT Press, 1994)

GRADING

There will be only one final exam (100%). Those who have taken the exam, but did not receive a grade of 60 or higher will have a second chance.

PROFESSOR – EMAILS

DETAILED PROGRAM

Outline (with chapters from MWG and G)

1. Static Games of Complete Information: Chapters 7 and 8 MWG and Chapter 1 G
   - Iterated Elimination of Strictly Dominated Strategies
   - Nash Equilibrium
   - Applications (Prisoner's Dilemma, Coordination, Cournot)
   - Matching Pennies
   - Existence
   - Mixed Strategies
2. **Dynamic Games of Complete Information**: Chapter 9 MWG and Chapter 2 G
   - Backwards Induction
   - Subgame Perfection
   - Repeated Games

3. **Static Games of Incomplete Information**: Chapter 8 and Appendix A chapter 12 of MWG and Chapter 3 G
   - Bayesian Nash Equilibrium

4. **Dynamic Games of Incomplete Information**: Chapter 8 MWG and Chapter 4 G
   - Perfect Bayesian Equilibrium

5. **Introduction to Adverse Selection, Signaling and Screening**: Chapter 13 MWG

   - 09/ago Lecture 1 Introduction to Game Theory and Static Games
   - 11/ago Lecture 2 Static Games and Introduction to Dynamic Games
   - 16/ago Lecture 3 Dynamic Games of Complete Information
   - 18/ago Lecture 4 Bargaining (Nash and Rubinstein)
   - 23/ago Lecture 5 Bargaining (Nash and Rubinstein)
   - 25/ago Lecture 6 Repeated Games
   - 30/ago Lecture 7 Repeated Games
   - 01/set Lecture 8 Repeated Games
   - 06/set Lecture 9 Repeated Games (Folk Theorem)
   - 08/set Lecture 10 Static Games of Incomplete Information
   - 13/set Lecture 11 Static Games of Incomplete Information: Applications and Auctions
   - 15/set Lecture 12 Dynamic Games of Incomplete Information
   - 16/set Lecture 13 Perfect Bayesian Equilibrium and Sequential Equilibrium
   - 20/set Lecture 14 Topics