

## Syllabus

[cmcd.economia@fgv.br]

**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).
- Robert Gibbons, Game Theory for Applied Economists (Princeton University Press, 1992)
- 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, An Introduction to Game Theory (Oxford University Press, 2004)
- Martin J. Osborne and Ariel Rubinstein, A Course in Game Theory (MIT Press, 1994)
- Bernard Salanie, The Economics of Contracts (MIT Press, 2005).

#### 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