MICROECONOMICS
ECON0106-A7P-T1/2
Syllabus Spring 2025
Weeks: 21-30

Instructors: JEHIEL, Philippe (Prof), SKRETA, Vasiliki (Prof)
Lectures: Tuesday 13:00-15:00
Room Offices: Drayton House
Email: p.jehiel@ucl.ac.uk & v.skreta@ucl.ac.uk
Office hours: By appointment

Course Teaching Assistant:
Tutorial:
Room:
Tutorial:
Room:
Email:
Office hours:

COURSE INFORMATION

This is a course on topics in microeconomic theory. We will study some fundamental tools and notions, as well as frontier tools.

MOODLE: There you can find most of the relevant information for this course: readings, slides, problem sets and solutions. Materials will be updated as the course proceeds. Please check Moodle regularly. I will post the problem sets and keys as the course progresses as well as the suggested readings corresponding to each lecture.

USEFULL TEXTBOOKS AND NOTES:

1. Mas-Colell, Whinston, and Green (1995)
2. Myerson (1991)

COURSE REQUIREMENTS: The requirements for the module is to do a 24-hour final exam in term 3 and to work on assignments.

LIST OF TOPICS: *(taught by Prof. Skreta)*

The material that I expect you to know for the exam is contained on the slides or lecture notes. Below next to each topic I offer resources for further study and as complements to the lecture notes. Most of the papers are on Moodle. There you can also find other papers that are useful and interesting. These are meant to inform you and to excite you about the material.

1. Games with contracts and communication Chapter 6 in Myerson (1991).

2. Canonical Mechanisms–The Revelation Principle Myerson (1982).

3. Mechanism design versus Implementation Theory Chapter 23 Mas-Colell et al. (1995).
   This chapter has also the details for Myerson (1981) and Myerson and Satterthwaite (1983).

4. Information design: Bergemann and Morris (2019); Kamenica (2019); Forges (2020).

List of Topics: *(taught by Prof. Jehiel)*

This course is meant to provide students with a wide range of approaches, as recently developed in behavioral game theory.

These include among others: the quantal response equilibrium, the analogy-based expectation equilibrium, level k, cursed equilibrium, equilibria with misspecified priors (Berk-Nash equilibrium), the Bayesian network equilibrium, the valuation equilibrium, etc.

These approaches will be related to classic concepts in game theory including the Nash equilibrium with subjective prior, the set of rationalizable outcomes, and the self-confirming equilibrium.

The material covered in this part is close to the research frontier. The main objective is to make students think of how to go beyond the standard rationality paradigm in the context of well known economic applications.

References/ books Camerer C. (2003): Behavioral Game Theory, Princeton University Press Camerer (2003)

Fudenberg D and D Levine (1998): The Theory of Learning in Games, MIT Press. Fudenberg and Levine (1998)

Kreps, D. Game Theory and Economic Modelling (Clarendon Lectures inEconomics) Kreps (1990) Rubinstein (1998) Rubinstein, A (1998).: Modeling Bounded Rationality, MIT Press

Articles Esponda I. and D. Pouzo (2016): "Berk-Nash equilibrium: A framework for modeling agents with misspecified models," Econometrica, 84(3):1093-1130. Esponda and Pouzo (2016)

Eyster, E., and M. Rabin (2005): Cursed Equilibrium, Econometrica 73 (5):1623-72 Eyster and Rabin (2005)

Jehiel, P (2005): Analogy-based Expectation Equilibrium, Journal of Economic Theory Jehiel (2005)

Jehiel, P and F. Koessler (2008): Revisiting Games of Incomplete Information with Analogy-based Expectations, Games and Economic Behavior Jehiel and Koessler (2008)

Jehiel P. and D Samet (2007): "Valuation Equilibrium," Theoretical Economics 2, 163-185.Jehiel and Samet (2007)

McKelvey and Palfrey (1995): Quantal Response Equilibrium, Games and Economic Behavior, McKelvey and Palfrey (1995)

R. M. Nagel (1995): Unraveling in guessing games, American Economic Review,Nagel (1995)

M. Osborne, A. Rubinstein (1998): "Games with procedurally rational players," Amer. Econ. Rev. 88, 834-847. Osborne and Rubinstein (1998)

Spiegler, R. (2016): "Bayesian Networks and Boundedly Rational Expectations," Quarterly Journal of Economics 131, 1243-1290. Spiegler (2016)

References

Bergemann, D. and S. Morris (2019): "Information design: A unified perspective," *Journal of Economic Literature*, 57, 44–95.

Camerer, C. (2003): *Behavioral Game Theory*, Princeton University Press.

Esponda, I. and D. Pouzo (2016): "Berk-Nash equilibrium: A framework for modeling agents with misspecified models," *Econometrica*, 84, 1093–1130.

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Forges, F. (2020): "Games with incomplete information: from repetition to cheap talk and persuasion," *Annals of Economics and Statistics*, 3–30.

Fudenberg, D. and D. Levine (1998): *The Theory of Learning in Games*, MIT Press.

Jehiel, P. (2005): "Analogy-based Expectation Equilibrium," *Journal of Economic Theory*.

Jehiel, P. and F. Koessler (2008): "Revisiting Games of Incomplete Information with Analogy-based Expectations," *Games and Economic Behavior*.

Jehiel, P. and D. Samet (2007): "Valuation Equilibrium," *Theoretical Economics*, 2, 163–185.

Kamenica, E. (2019): "Bayesian persuasion and information design," *Annual Review of Economics*, 11, 249–272.

Kreps, D. M. (1990): *Game Theory and Economic Modelling*, Clarendon Lectures in Economics, Oxford University Press.

Mas-Colell, A., M. D. Whinston, and J. R. Green (1995): *Microeconomic Theory*, New York: Oxford University Press.

McKelvey, R. D. and T. R. Palfrey (1995): "Quantal Response Equilibrium," *Games and Economic Behavior*.

Myerson, R. and M. Satterthwaite (1983): "Efficient Mechanisms for Bilateral Trading," 28, 265–281.

Myerson, R. B. (1981): "Optimal Auction Design," *Mathematics of Operations Research*, 6, 58–73.

——— (1982): "Optimal coordination mechanisms in generalized principal-agent problems," *Journal of Mathematical Economics*, 10, 67 – 81.

——— (1991): *Game Theory, Analysis of Conflict*, Harvard University Press.

Nagel, R. M. (1995): "Unraveling in guessing games," *American Economic Review*.

Osborne, M. J. and A. Rubinstein (1998): "Games with procedurally rational players," *American Economic Review*, 88, 834–847.

Rubinstein, A. (1998): *Modeling Bounded Rationality*, MIT Press.

Spiegler, R. (2016): "Bayesian Networks and Boundedly Rational Expectations," *Quarterly Journal of Economics*, 131, 1243–1290.