![uc3m | Universidad Carlos III de Madrid]

Topics in microeconomics (B)

Academic Year: (2024 / 2025) **Review date: 24-08-2024**

Department assigned to the subject: Economics Department

Coordinating teacher: SCHNEIDER , JOHANNES SIEGFRIED

Type: Electives ECTS Credits : 4.0

Year : 2 Semester : 2

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

Microeconomics I, II, and III
Macroeconomics I, II, and III
Econometrics I, II, and III
from the MAEs core sequence

OBJECTIVES

This course is designed to bring students to the research frontier in contract theory. Students that plan to do research in all areas that involve an understanding of contracts and negotiations are provided with tools and concepts to model and analyze existing contracts, the design of contracts and their dynamic consequences. Beyond studying tools, we put contract theory to work: we look at applications on the research frontier and the lessons contract theory teaches us about them.

After successful completion, students should have the tools and background to do research on contract theory and/or apply state of the art concepts to their applications of interest.

DESCRIPTION OF CONTENTS: PROGRAMME

Part A: Techniques.
1. Introduction to Dynamic Optimization, Optimal Control, Dynamic Games
2. A refresher on Moral Hazard
3. Experimentation Models

Part B: Applications
1. Innovation
2. Collaboration
3. Industrial Organization
4. Organizational Economics
5. Political Economy
6. Behavioural Economics
7. Theoretical Advances

LEARNING ACTIVITIES AND METHODOLOGY

Lectures
Student Presentations
Written Reports and Research Proposals
Class Discussion
Teamwork
Office hours

The focus of the lectures is the introduction of lectures is to introduce and repeat techniques and concepts. Students are then preparing individually or in teams presentations of recent applications of those tools on the basis of current working papers or recent publications. We discuss the papers, their modeling choices and alternatives in class. Students are then asked to use the insights gained to either

provide a report on an existing paper or present a related research idea of their own.

ASSESSMENT SYSTEM

% end-of-term-examination: 40

% of continuous assessment (assigments, laboratory, practicals…): 60

Class Participation (20%)
Student presentation (40%)

written Report/Research Proposal (40%)

BASIC BIBLIOGRAPHY

- Acemoglu, Daron Introduction to Modern Economic Growth, Princeton University Press, 2008

- Acemoglu, Daron and Matt Jackson History, expectations, and leadership in the evolution of social norms, Review of Economic Studies, 2015

- BArron, Daniel, Yingni Guo and Bryony Reich Wealth Dynamics in Communities, Review of Economic Studies , 2023

- Bard Harstad Pledge-and-Review Bargaining: From Kyoto to Paris, The Economic Journal , 2022

- Bard Harstad and MArco Battaglini The Political Economy of Weakt Treaties, Journal of Political Economy, 2020

- Bergemann, Dirk and Ulrich Hege The financing of Innovation: Learning and Stopping, RAND Journal of Economics, 2005

- Boleslavsky Ralph and Curt Taylor Make it 'til you fake it, Journal of Economic Theory, 2024

- Bolton, Patrick and Christopher Harris Strategic Experimentation, Econometrica, 1999

- Bolton, Patrick and Mathias Dewatripont Contract Theory, MIT Press, 2004

- Botond Koszegi Behavioral Contract Theory, Journal of Economic Literature, 2014

- Bruno Strulovici Learning While Voting: Determinants of Collective Experimentation, Econometrica , 2010

- Bruno Strulovici Renegotiation Proof Contracts with Persistent states, mimeo, 2022

- Cetemen Doruk; Can Urgun and Leeat Yariv Collective Progress: Dynamics of Exit Waves, Journal of Political Economy, 2023

- Dai Tianjiao and Juusoo Toikka Robust inventives for Teams, Econometrica , 2022

- Deb, Joyee; Aditya Kuvalekar and Elliot Lipnowski Fostering Collaboration, mimeo, 2023

- Deb, Rahul; Mattew Mitchell and Mallesh Pai Bad Reputation in Relational Contracting, 2022, Theoretical Economics

- Ederer, Florian and Gustavo Manso Is pay for perfromance detrimental to innovation, Management Science, 2013

- Ely, Jeff; George Georgiadis and Luis Rayo Feedback Design in Dynamic Moral Hazard, mimeo, 2023

- Foarta Dana and Takuo Sugaya The management of talent: Optimal contracting for selection and incentives, Rand Journal of Economics, 2021

- Gabriel Carroll Robustness in mechanism design and contracting, Annual Review of Economics, 2019

- Georgiadis, George and Michael Powell A/B Contracts, American Economic Review, 2022

- Georgiadis, George, Doron Ravid and Balazs Szentes Flexible Moral Hazard Problems, Econometrica, 2024

- Gottlieb Daniel and Humberto Moreira Simple Contracts with Adverse Selection and Moral Hazard, Theoretical Economics, 2022

- Gustavo Manso Motivating Innovation, The journal of FInance, 2011

- Halac, MArina and Pierre Yared Fiscal Rules and Discretion in a World Economy, American Economic Review, 2018

- Halac, Marina, Ellito Lipnoswki and Daniel Rappoport Rank uncertainty in Organizations, American Economic Review, 2021

- Harry Pei Reputation building under observational learning, Review of Economic Studies, 2023

- Heidhues, Paul and Botond Koszegi Behaviorual Industrial Organization, Handbook of Behavioral Economics --- Foundations and Applications 1, 2015

- Hopenhayn, Hugo and Francesco Squintani On the Direction of Innovation, Journal of Political Economy, 2021

- Keller, Godfrey; Sven Rady and Martin Cripps Strategic Experimentation and Exponential Bandits, Econometrica, 2005

- Mailath, George and Larry Samuelson Repeated Games and Reputations: Long-Run Relationships, Oxford University Press, 2006

- Roger Myerson Moral Hazard in Hoh Office and the Dynamics of Aristocracy, Econometrica, 2015

- Seierstad, Atle and Knut Sydsaeter Optimal Control Theory with Economic Applications, Elsevier North-Holland, 1986

- Simon Board Relational Contracts and the Value of Loyalty, American Economic Review, 2011

- Sofia Moroni Experimentation in Organizations, Theoretical Economics, 2022

- Steven Callander Searching and Learning by Trial and Error, American Economic Review, 2011

- Strulovici Bruno and Martin Szydlowski On the smoothness of value functions and the existence of optimal strategies in diffusion models, Journal of Economic Theory, 2015