

*M. Hungerbühler (University of Namur) and Bruno Van der Linden (UCL)*

## **ECON 2702B Equilibrium search and matching models: Theory and applications**

### **Objective**

The objective of the course is to develop PhD students' abilities in acquiring a better understanding of the functioning of markets, with a special interest for the role of search and matching frictions. The course is based on the recent literature of the profession. Peter Diamond, Dale Mortensen and Christopher Pissarides got the Nobel Price in Economic Sciences 2010 "for their analysis of markets with search frictions"

(see [http://www.nobelprize.org/nobel\\_prizes/economics/laureates/2010/index.html](http://www.nobelprize.org/nobel_prizes/economics/laureates/2010/index.html) and <http://onlinelibrary.wiley.com/doi/10.1111/j.1467-9442.2011.01658.x/abstract> ).

Any market is to some extent frictional in the sense that, in the presence of imperfect information and in the absence of a centralized market, suppliers and demanders need to invest time and other resources to find a trade partner. Examples can be found in the labour, product, financial and money markets.

The aim of this doctoral course is to see what economics discovers by taking search and matching frictions explicitly into account. The course starts with an overview of the theory of frictional markets (Part 1). Taking account of the research interest of PhD students, Part 2 of the course then considers various applications in fields such as:

- The evaluation of labour market policies,
- The accumulation of human capital and the economics of education,
- Discrimination,
- Optimal taxation and the design of social insurance/assistance schemes,
- Macroeconomics: analysis of the business cycle, unemployment, Monetary Policy, credit market imperfections,
- Industrial organization,
- Urban and regional economics,
- Economics of the housing market,
- International trade,
- Monetary economics,
- Development economics,
- Economics of inequalities.

In these fields, there will be room for theoretical, applied and empirical contributions (reduced forms analyses and structural models).

## Organization

### Prerequisites

An advanced course in labour economics is *not* a prerequisite. The *basic* theory of models with frictions (i.e. Part 1) is however taught rapidly.<sup>1</sup> If the background of PhD students is insufficient, references of textbooks will be provided to fill the gap. Students must have basic notions in mathematics, statistics and econometrics and be able to solve optimisation problems in a dynamic setting. Again, if needed, students will have to learn some of these notions by themselves.

### Course requirements and grading

A limited number of lectures will be devoted to Part 1. Part 1 will be evaluated before Part 2 starts. During Part 2, each session will be devoted to one theme. Each PhD student will in turn be in charge of presenting a paper on the chosen theme. All the others will have to read this paper as well. At the end of each session, each student will have 15 minutes to sum up on a single page the main messages of the papers of the day.

Your final grade will be based on your performance

- during the examination at the end of Part 1 (30%),
- during your presentation (40%),
- on the weekly syntheses and on your active participation to the discussions (30%).

Our task as evaluators is to gauge whether you understand the logic of arguments within formal economic models, focusing on intuition *and* on mathematical derivations.

### Support:

Surveys, chapters of some books and papers published in academic journals. PhD students will have access to a website created for the course.

### Time schedule:

*When?* On Wednesdays during the second term.

Part 1: March 13, 2013 :10:45-12:45 and 14:00-16:00

March 20, 2013 :10:45-12:45 and 14:00-16:00

Examination : March 27, 2013: 10:45-12:45

Part 2: April 17, 24 and May 8, 22 and 29 :10:45-12:45 and 14:00-16:00

*Where?* IRES, 3 place Montesquieu, 1348 Louvain-la-Neuve. Room D 109.

To adapt the size of the room to the number of participants, please send an email to Bruno Van der Linden if you intend to take part to this doctoral course.

### Contact:

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<sup>1</sup> There is here an overlap with the master course ECON 2608 Advanced Labour Economics in the research master of the Economic School of Louvain.