

## **Econ 750 - Spring 2008 Labor Market Economics**

Instructor: Rasmus Lentz  
Tue, Thu 11:00am-12:15am, EDUC SCI 218

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### **Course overview**

The course will cover a subset of advanced topics in order to expose you to some of the recent open questions and tools used to address them in the field. Topics include partial and general equilibrium search theory, learning, unemployment duration analysis, optimal unemployment insurance policy, job and worker flow analysis, wage offer distribution estimation, wage determination theories, business cycle labor market analysis, labor demand theory, and numerical and theoretical methods for the analysis and estimation of recursive labor market models.

### **Course assignments**

In addition to simple homework exercises, you will be required to complete a major course project. The course project is in two parts. The first part involves numerically solving a partial equilibrium search model using a number of different methods and learning how to simulate data from the model. The second part of the course project then involves estimating the model using methods ranging from maximum likelihood to indirect inference. You will be required to do this work in Fortran.

The class does not have a midterm or final. You will be required to do one class presentation of one article from the list below (approx 60 minutes) and produce a term paper. The term paper is due on June 1, 2008.

### **Articles for student presentations**

- Sorting: Becker (1973), Shimer and Smith (2000), Shimer (2005a), Atakan (2006)
- Directed matching: Burdett, Shi, and Wright (2001), Julien, Kennes, and King (2000)
- Competitive search: Moen (1997)
- Efficiency: Mortensen and Wright (2002)

### **Course outline**

- **Partial equilibrium search**
  - Recursive dynamic programming.
  - The wage search model.
  - On-the-job search.

- Learning about the job.
- Articles: Mortensen (1986), McCall (1970), Burdett (1978), Jovanovic (1979), Lentz and Tranæs (2005), Rogerson, Shimer, and Wright (2005), Hornstein, Krusell, and Violante (2006).
- **Numerical methods**
  - Solving dynamic programs.
  - Simulated estimation methods.
  - Articles: Judd (1998), Gourieroux, Monfort, and Renault (1993), Gourieroux and Monfort (1997), Hall and Rust (2003), Alvarez, Browning, and Eijrnæs (2001), Bugni, Hall, Horowitz, and Neumann (2006).
- **Empirical applications of the partial equilibrium search model**
  - Unemployment duration analysis.
  - Wage offer distribution estimation.
  - Articles: Devine and Kiefer (1991), Flinn and Heckman (1982), Meyer (1990), Christensen, Lentz, Mortensen, Neumann, and Werwatz (2005).
- **Policy study in the partial equilibrium search model: Optimal unemployment insurance.**
  - Optimal duration profile.
  - Optimality with savings.
  - Articles: Hopenhayn and Nicolini (1997), Shimer and Werning (2006), Hansen and Imrohoroglu (1992), Lentz (2003).
- **General equilibrium models of matching and search**
  - Assignment.
  - Job creation and job destruction.
  - Worker flows.
  - Volatility of unemployment and vacancies.
  - Articles: Becker (1973), Shimer and Smith (2000), Atakan (2006), Pissarides (2000), Mortensen and Pissarides (1994), Hosios (1990), Davis, Haltiwanger, and Schuh (1996), Shimer (2005b), Hagedorn and Manovskii (2006), Mortensen and Nagypál (2006), Nagypál (2005), Rogerson, Shimer, and Wright (2005)
- **Wage dispersion**
  - Non-friction labor market equilibrium theories of wage dispersion.
  - The Diamond paradox.
  - Burdett-Mortensen wage dispersion in on-the-job search.
  - Empirical studies of wage dispersion.
  - Articles: Murphy and Topel (1987), Rosen (1986), Diamond (1971), Mortensen (2003), Burdett and Mortensen (1998), Moscarini (2005), Postel-Vinay and Robin (2002), Cahuc, Postel-Vinay, and Robin (2006).

- **Labor demand and growth**

- Firm size distributions.
- The labor market and growth.
- Articles: Klette and Kortum (2004), Luttmer (2004), Gabaix (2007), Lentz and Mortensen (2005), Lentz and Mortensen (2007).

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