Course Description: This course provides an in-depth analysis of the implications of search frictions for the macro-economy and society at large. The course will develop the main tools of the search and matching approach used to address economic and social questions. With these building blocks in place we consider some more specific applications to the aggregate labor market, money, and marriage. At the end of the course students should have a working knowledge of the models used and a good sense of the open questions in those subject areas for which these models are most appropriate.

Required Reading: There is no text for the course. The best sources of information are Recursive Macroeconomic Theory by Ljungqvist and Sargent MIT Press 3rd Ed. [2012] (Anyone doing the macro field should own this book) and Equilibrium Unemployment Theory by C. Pissarides, MIT press [2000]. Other useful sources are Randy Wright’s lecture notes on search theory and an excellent survey, Rogerson et al [2004], for directed search. A survey of directed search that is still under construction is Wright et al [2016]. A source on monetary applications is Money, Payments and Liquidity by E. Nosal and G. Rocheteau, MIT press [2011]. Other sources will be journal articles as indicated below. Papers that we do not discus in class will not be examinable but papers that students present in class are eligible for the final exam.

Homework: During the first part of the course I will, from time-to-time point out exercises that should be of interest to you. I will ask that three or four of these be handed in. They will be graded pass/fail.

Grading: The final grade will depend on the homeworks a take-home midterm, a paper presentation and a final exam. The weight of each will be 10%, 20%, 30%, 40% respectively. Paper presentations will be in class toward the end of the semester and students get to pick papers off a list provided. Students may submit a term paper in lieu of the final exam. The topic for a term paper should be agreed with me at least two weeks before the last class. (Term papers often emerge as extensions of the take-home exam exercise.)
Topics covered (We may not do all of these, some may be used as a basis for in-class student presentations and others for term papers.)

PART I: THEORETICAL FOUNDATIONS

Preliminaries (See Wright notes and Rogerson et al [2005])

(1) Continuous time value functions, Poisson processes, one-sided search and the Diamond paradox.

(2) On-the-job search

Equilibrium Unemployment and Directed Search

(3) Basic continuous time DMP model with bargaining (Pissarides [2000])

(4) Basic model with directed search (Moen [1997]/Rogerson et al [2005])

(5) Other extensions and variants: multiple applications, multi worker firms, partially directed search.

PART II: APPLICATIONS

Wage/price dispersion

(6) Empirical issues for wage dispersion in search models (Hornstein, et al [2011])

(7) Endogenous Wage Dispersion (Burdett and Mortensen [1998])

(8) Contract dispersion (Stevens [2003], Burdett and Coles [2003])

Business cycles

(10) Business Cycles in the DMP model. Mortensen and Pissarides [1994]

(11) Shimer’s critique (Shimer [2005]).

(12) A recalibration of the MP model. (Hagedorn and Manovskii [2008])

(13) Work addressing Shimer’s critique (Mortensen and Nagypal [2007], Hall and Milgrom [20??], Hall [2009])

On-the-job-search over the cycle using block recursivity. (Menzio and Shi [2011])

Unemployment Insurance
Coles and Masters [2006] Fredriksson and Holmlund [2001]

**Fiat Money and Inside Money**

(14) Basic New Monetarist model (Rocheteau and Wright [2005]).

(15) Liquidity (Kiyotaki and Moore [2008]).

**Marriage/Two-sided matching**

(16) Assortative Matching (Becker [1981]/Shimer and Smith [2000])

(17) Class structure of the Marriage market (Burdett and Coles [1998])

(18) Directed Search in Matching Markets (Jacquet and Tan [2007])

(19) Commitment and Separations (Burdett et al [2004], Masters [2008])

**Other possible topics:**

**Mismatch**
- Gautier, P.A., Teulings, C.N. and van Vuuren, A. [2010]

**Middlemen/Intermediation**
- Rubinstein and Wolinsky [1987]
- Masters [2007]
- Wong and Wright [2014]

**Banking**
- Berentsen et al [2007]
- Gu et al [2013]

**Sorting**
- Series of papers by Kircher and Eeckhout

**References** (To find the papers: if they are published then the University library is likely to have electronic access to them. This can be through JSTOR or directly from the journal. If they are unpublished then they are available through authors’ web pages. You have to google them)


Delacroix, A, and S. Shi [2006] “Directed search on the job and the wage ladder”
(http://www.albany.edu/~am755146/papers/pdweb.pdf)
Masters, A. [2012] “Value of leisure or disutility or work: Wage dispersion in a model of search with endogenous effort.”
(http://www.albany.edu/~am755146/papers/pdweb.pdf)
Moen, [2003] “Do good workers hurt bad workers – or is it the other way around?
International Economic Review, 44.2: 779-800.


Wright, R., B. Julien, P. Kircher and V. Guerrieri “Directed Search: A Guided Tour” manuscript.