Econ 244: Market Failures and Public Policy

Liran Einav and Heidi Williams

Winter 2021
Mondays and Wednesdays, 11:30 AM–1:20 PM

Course overview. This course will cover selected topics in applied microeconomics, namely insurance and credit markets (aka “selection markets”), markets for innovation, and healthcare markets. The common theme (as the course name suggests) is that in all three contexts there are good a priori reasons to be concerned about potential market failures, suggesting that some type of government intervention or regulation may be critical for achieving efficient market outcomes. These three markets are also particularly useful in illustrating the connection and interplay between economic research and public policy.

The focus of the course will be on topics, not methods, and will therefore cater to a broad set of students – especially those with interests in applied microeconomics, broadly defined. While, formally, this class is not attached to any of the second-year sequences, it should be particularly complementary to the second-year sequences in IO and public economics.

In addition to discussing existing work and bringing students closer to the research frontier, the course will emphasize areas of inquiry where additional research is feasible and warranted, thus hopefully generating possible leads for second-year research papers.

Course logistics. The class meets regularly on Mondays and Wednesdays, 11:30am–1:20pm. There is no class on January 18 (MLK Jr. Day) nor February 15 (Presidents’ Day). We will be using Canvas to post material and send announcements. A tentative list of lectures is below. Starred papers on the reading list are those we expect to discuss in detail in class. In the first part of the course (markets for innovation) Heidi will share some pre-recorded lectures, and roughly half of the in-class time will be devoted to guest speakers. The rest of the class will consist of regular synchronous classes.

Course requirements. Student requirements will include three components (weight in the final grade in parentheses):

- Problem sets that will mostly include reviews of papers, concepts, and research ideas (30%)
- Class attendance, preparation, and participation (35%)
- Research paper proposal (35%)
Class topics and schedule.

**Markets for innovation (Heidi)**

1. Mon, Jan 11: Introduction to markets for innovation.
   - Guest speaker: Ben Jones (Northwestern Kellogg)
2. Wed, Jan 13: Market size and market design.
   - Guest speaker: Susan Athey (Stanford GSB)
3. Wed, Jan 20: Economics of science
   - Guest speakers: Carolyn Stein (MIT) and Paula Stephan (Georgia State)
4. Mon, Jan 25: Taxes and innovation
   - Guest speaker: Enrico Moretti (UC-Berkeley)
5. Wed, Jan 27: Public funding of research
   - Guest speaker: Pierre Azoulay (MIT Sloan)
6. Mon, Feb 1: Intellectual property rights
   - Guest speaker: Lisa Larrimore Ouellette (Stanford Law)
7. Wed, Feb 3: Immigration and innovation
   - Guest speaker: Bill Kerr (Harvard Business School)
8. Mon, Feb 8: Innovation and Inequality
   - Guest speaker: Xavier Jaravel (London School of Economics)

**Selection markets (Liran)**

9. Wed, Feb 10: Intro to selection markets
10. Wed, Feb 17: Testing for asymmetric information
11. Mon, Feb 22: Empirical models of insurance demand
12. Wed, Feb 24: Empirical models of insurance demand
13. Mon, Mar 1: Estimating welfare in insurance markets
14. Wed, Mar 3: Credit markets
15. Mon, Mar 8: Credit markets
16. Wed, Mar 10: Reclassification risk vs. adverse selection

**Final week**

17. Mon, Mar 15: AI and inequality (Neale Mahoney)
18. Wed, Mar 17: Wrap-up lecture (Heidi and Liran)
1 Markets for innovation

1.1 Introduction to markets for innovation

Key references


Market failures


1.2 Market size and market design

Market size and innovation


Market design: Advanced Market Commitments


1.3 Economics of science

Key references


Priority as a rewards system in science


Compensating differentials


Burden of knowledge hypothesis


1.4 Taxes and innovation


1.5 Public funding of research

**Key references**


**Impacts of publicly funded research investments**


Designing publicly funded research grants


Universities


Public funding for private firms


1.6 Intellectual property rights

Key references


Optimal patent design


**Empirics: Patents and innovation**


**Patent scope**


**Sequential innovation**


Disclosure


Prizes, patents, and patent buyouts


Excludability


1.7 Immigration and innovation

Key references

H-1B visas and innovation


Historical evidence


1.8 Innovation and inequality

Who becomes a scientist/inventor?


Who benefits from product innovation?


Who benefits from patents?


2 Selection markets

2.1 Theoretical background


2.2 Testing for asymmetric information in insurance markets


2.3 Estimating demand for insurance


2.4 Welfare in insurance markets


2.5 Credit markets


