

Class Meets MWF 2:10PM - 3:00PM, Baxter 311

Contact

Instructor: Professor Suting Hong
Office: Baxter 130
Office Hours: Mondays 3-5pm, Wednesdays 3-5pm, Fridays 1-2pm, or by appointment.
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Course Description and Objectives

This course has three objectives: (1) to introduce students to rigorous frontier economic research on entrepreneurship; (2) to encourage the development of business analytical skills; (3) to help students learn basic skill set for starting a business. We will examine entrepreneurship from both macro- and micro-economic perspectives. Coursework provides an overview of the origins, financing, and competitive strategies of entrepreneurship. We will also consider the impact of entrepreneurship on innovation, productivity, and economic development. Throughout, case studies will be used to link theories to application in a variety of business settings. In addition, class members will participate in the Entrepreneurship Game to experience the challenge of starting and financing a business.

Prerequisites

Econ 101, we will use graphs and basic algebra in the class.

Course Materials

There is no required textbook for this course. For each topic, we will read and discuss a few journal articles. Some articles are quite technical and involve high level of economics. As this is a 200-level course, you are NOT required to go through all the quantitative analyses. Our goal is to understand the economic intuitions underlying the quantitative analyses, which oftentimes are quite straightforward.

Canvas: I will post lecture notes, reading material, and announcements for this course on Canvas. Please check the site often. Lecture notes will generally be posted in advance. I recommend that you print them out and bring them to class so that you can take notes on them.

Grading

Exams: There will be TWO closed-book exams: a midterm on March 6th and a final on May 6th. There will be **NO** make-up exams.

The Entrepreneurship Game: One important component of the course is the Entrepreneurship Game. You will play the game in teams. Each team plays a dual role in the game: as entrepreneurs and as investors. Please refer to the Entrepreneurship Game handout for more details.

The Entrepreneurship Game will make up 30% of your total grades for the course. The grading of the game itself consists of the following four parts:

1. Participation and commitment (30%)

2. Pitch presentation (30%)
3. Mentor service to other teams (20%)
4. Final business plan and class term sheet (20%)

Class Presentations: Students will present in **TEAMS**. There are two types of materials for presentations: journal articles and Harvard Business School Cases.

For journal articles, prepare a 30-minute (15-20 slides) presentation, addressing the questions outlined below.

- What is the research question of this paper?
- Why is it important? Does it address an important policy question?
- What is the state of the current literature on this question? Is there a well-defined debate or knowledge gap that this paper addresses?
- What are the data used in the paper?
- What are the main conclusions from the paper?

For case discussions, prepare a 15-minute presentation that overviews the following questions:

- What is the industry context?
- What are the strategies used by the company in the case?
- Why did those strategies work/fail for the company?
- What should the company do in the future?

Case Analysis Assignments: You will analyze a set of questions based on each case discussed in class. I will post the case analysis questions on Canvas. You are required to read the case in advance and to think about your answer to the questions before we discuss them in class. The case analysis is due the next class following the discussion.

Paper Summary You are required to prepare a summary of each journal paper presented in class, including those presented by your fellow students. The summary should be short (one paragraph) and outline the research question, research strategy, and main conclusions of the paper. The paper summary is due the next class following the presentation.

Your grades will be based on the following:

Entrepreneurship Game	30%
Two Exams	15% each
Paper Summary	10%
Case Analysis	15%
Class Presentation	15%

I will apply the following rule to all of your grades:

Grade	Percent Score
A	90-94
A-	88-89
B+	85-87
B	80-84
B-	78-79
C+	75-77
C	70-74

C-	68-69
D	60-67
F	Less than 60

Grade Recording:

I will be using Canvas to record your grades on homework and exams. Please note that the scores in Canvas are NOT weighted according to the weighting scheme outlined above. You can use Canvas to keep track of your scores on the various items, but please remember that these scores are not weighted and therefore may not be representative of your letter grade in the class.

Schedule of Readings

Topic 1: Human Capital in Innovation and Entrepreneurship

Jones, B. (2009). "The Burden of Knowledge and the Death of the Renaissance Man: Is Innovation Getting Harder?" *Review of Economic Studies*. 76(1): 283-317.

Jones, Charles I. 1999. "Growth: With or Without Scale Effects?" *American Economic Review* 89(2): 139-144.

Student presentations

Wuchty, S., B. Jones, and B. Uzzi (2007). "The Increasing Dominance of Teams in the Production of Knowledge," *Science*, 316.

Wadhwa, V., R. Freeman, and B. Rissing (2010). "Education and Tech Entrepreneurship," *Innovations*, Spring 2010.

Topic 2: How Do Patents Affect Innovation?

Gallini, Nancy, and Suzanne Scotchmer. 2002. "Intellectual Property: What is the Best Incentive System." *Innovation Policy and the Economy* 2: 51-77.

Lemley, Mark A., and Carl Shapiro. 2005. "Probabilistic Patents." *Journal of Economic Perspectives* 19(2): 75-98.

Moser, Petra, "How Do Patent Laws Influence Innovation? Evidence from Nineteenth-Century World's Fairs," *American Economic Review*, 95(4), pp. 1214-1236 (2005).

Lampe, Ryan and Petra Moser, "Patent Pools, Competition, and Innovation? Evidence from 20 Industries under the New Deal," *Stanford Law and Economics Olin Working Paper* No. 417. Available at SSRN: <http://ssrn.com/abstract=1967246>

Lamoreaux, N. and K. Sokoloff (2001). "Market Trade in Patents and the Rise of a Class of Specialized Inventors in the 19th Century United States," *American Economic Review Papers and Proceedings*, 91(2): 39-44.

Student presentations:

Moser, Petra. 2013. "Patents and Innovation: Evidence from Economic History." *Journal of Economic Perspectives*, 27(1): 23-44.

Jaffe, A., and J. Lerner (2006). "Innovation and its Discontents," *Innovation Policy and the Economy*, (eds.) Adam Jaffe, Josh Lerner and Scott Stern, MIT Press, Volume 6, pp.27-65.

Topic 3: Incentives for Innovators: Contracts and Control Rights

Aghion, Philippe, and Jean Tirole. 1994. "The Management of Innovation." *Quarterly Journal of Economics* 109(4): 1185-1209.

Lerner, Joshua, and Julie Wulf. 2007. "Innovation and Incentives: Evidence from Corporate R&D." *Review of Economics and Statistics* 89(4): 634-644

Manso, Gustavo. "Motivating Innovation." *The Journal of Finance*, October 2011, Volume 66, Issue 5, Pages: 1823–1860.

Malmendier, U. and J. Lerner, "Contractibility and the Design of Research Agreements," *American Economic Review*, 100(1): 214-246.

Topic 4: The Gale of Creative Destruction and the Market for Ideas

Schumpeter, Joseph. 1942. "The Process of Creative Destruction." Chapter VII, pp. 81-86 in *Capitalism, Socialism, and Democracy*. New York, NY: Harper & Row.

<http://www.compilerpress.ca/Competitiveness/Anno/Anno%20Schumpeter%20CSD%20Ch.%20VII%20Creative%20Destruction.htm>

Arrow, Kenneth. 1962. "Economic Welfare and the Allocation of Resources for Invention." In *The Rate and Direction of Inventive Activity: Economic and Social Factors*, pp. 609-625.

<http://www.nber.org/chapters/c2144.pdf>

Gans, J.S., D. Hsu and S. Stern (2008). "The Impact of Uncertain Intellectual Property Rights on the Market for Ideas," *Management Science*, 54(5): 982-997.

Gans, J.S., and S. Stern (2003). "The Product Market and the Market for Ideas: Commercialization Strategies for Technology Entrepreneurs," *Research Policy*, 32: 333-350

Student presentations:

Gans, J.S., and S. Stern. 2010. "Is There a Market for Ideas?" *Industrial and Corporate Change* 19(3): 805-837.

Arora, A., A. Fosfuri and A. Gambardella (2001). "Markets for Technology and their Implications for Corporate Strategy," *Industrial and Corporate Change*, 10(2): 419-451.

Topic 5: Competition and Innovation

Aghion, P, Bloom, N, Blundell, R, Griffith, R, and P. Howitt (2005) "Competition and Innovation: An Inverted U Relationship", *Quarterly Journal of Economics*.

Gans, Joshua S. 2011. "When is Static Analysis a Sufficient Proxy for Dynamic Considerations? Reconsidering Antitrust and Innovation." *Innovation Policy and the Economy* 11.

Student presentations

Evans, David S., and Richard Schmalensee. 2002. "Some Economic Aspects of Antitrust Analysis in Dynamically Competitive Industries." *Innovation Policy and the Economy* 2: 1-49.

Topic 6: Venture Capital and the Financing of Entrepreneurship

Lerner, Josh. "Venture Capital and Private Equity: A Course Overview." *International Journal of Entrepreneurship Education* 1, no. 3 (2003): 359–384.

Gompers, Paul A., and J. Lerner. "The Venture Capital Revolution." *Journal of Economic Perspectives* 15 (spring 2001).

Thomas Hellmann and Manju Puri (2002), "[On the Fundamental Role of Venture Capital](#)" "Economic Review," published by the Atlanta Federal Reserve Bank, 87, No. 4

Kaplan, Steven, and Per Strömberg, 2003, "Financial Contracting Theory Meets the Real World: Evidence from Venture Capital Contracts," *Review of Economic Studies* 70, 281–315.

Student presentation:

Kerr, William R., Ramana Nanda, and Matthew Rhodes-Kropf. 2014. "Entrepreneurship as Experimentation." *Journal of Economic Perspectives*, 28(3): 25-48

Kaplan, Steven N., and Josh Lerner. "It Ain't Broke: The Past, Present, and Future of Venture Capital." *Journal of Applied Corporate Finance* 22 (spring 2010): 1–12.

Topic 7: The Origins of Entrepreneurship

Bhide, Amar, 2000, *The Origin and Evolution of New Business*, New York: Oxford University Press.

Chapter 1. <http://www.bhide.net/books/Origin%20and%20Evolution/part1.pdf>

Gompers, Paul, Josh Lerner, and David Scharfstein, 2005, Entrepreneurial Spawning, *Journal of Finance*, 60, 577-614.

Kaplan, Steven, Berk Sensoy, and Per Stromberg, (2009), "Should Investors Bet on the Jockey or the Horse? Evidence from the Evolution of Firms from Early Business Plans to Public Companies," *Journal of Finance* 64:1, 75-115.

Topic 8: Social Interactions and Entrepreneurship

Giannetti, Mariassunta, and Andrei Simonov, 2009, Social interactions and entrepreneurial activity, *Journal of Economics and Management Strategy*, 18, 665-709.

Nanda, Ramana, and Jesper Sorensen, 2010, Workplace peer effects and entrepreneurship, *Management Science*, 56(7): 1116-26.

Josh Lerner and Ulrike Malmendier, 2013, With a Little Help from My (Random) Friends: Success and Failure in Post-Business School Entrepreneurship, *Review of Financial Studies*, 26 (10): 2411-2452.

Topic 9: Household Behaviors and Entrepreneurship

Evans, David and Boyan Jovanovic (1989). "An Estimated Model of Entrepreneurial Choice Under Liquidity Constraints", *Journal of Political Economy*, 97(4), 808-27.

Hurst, Erik and Annamaria Lusardi (2004). "Liquidity Constraints, Household Wealth, and Entrepreneurship", *Journal of Political Economy*, 112(2), 319-47.

Hurst, Erik, Geng Li and Ben Pugsley (2011). "What Do Small Businesses Do?" *Brookings Papers on Economic Activity*, 43(2): 73—142.

Student presentation:

Thomas Åstebro, Holger Herz, Ramana Nanda and Roberto A. Weber, "Seeking the Roots of Entrepreneurship: Insights from Behavioral Economics," *Journal of Economic Perspectives*, Vol. 28, No. 3 (Summer 2014), pp. 49-69

Topic 10: Productivity and Entrepreneurship

Haltiwanger, J., "Job Creation and Firm Dynamics in the U.S." *Innovation Policy and the Economy*, Volume 12 (2012)

Haltiwanger, J., R. Jarmin and J. Miranda, "Who Creates Jobs? Small vs. Large vs. Young" *Review of Economics and Statistics*, Vol. 95, No. 2, Pages 347-361.

Student presentation:

Decker, Ryan, John Haltiwanger, Ron Jarmin, and Javier Miranda. 2014. "The Role of Entrepreneurship in US Job Creation and Economic Dynamism." *Journal of Economic Perspectives*, 28(3): 3-24.

Topic 11: Entrepreneurship and Urban Growth

Glaeser, Edward L., Sari Pekkala Kerr, and William R. Kerr, 2012, "Entrepreneurship and urban growth: An empirical assessment with historical mines," *Review of Economics and Statistics*, Forthcoming.

Samila, Sampsa, and Olav Sorenson, 2011, Venture capital, entrepreneurship and economic growth, *Review of Economics and Statistics*, 93:1, 338-49.

Student presentation: Aaron Chatterji, Edward Glaeser, William Kerr, "Clusters of Entrepreneurship and Innovation," *Innovation Policy and the Economy* 14.

Topic 12: Development and Entrepreneurship

De Mel, S., McKenzie, D., and Woodruff, C. (2008). "Returns to Capital in Microenterprises: Evidence from a Field Experiment". *The Quarterly Journal of Economics*, 123(4): 1329-1372.

Bruhn, M., D. Karlan, A. Schoar, "What capital is missing in developing countries", *American Economic Review*, May 2010.

Student presentation:

Schoar, A. (2010) "The Divide Between Subsistence and Transformational Entrepreneurship" *Innovation Policy and the Economy*, Vol. 10

Topic 13: Family Businesses

La Porta, R., F. López-de-Silanes, A. Shleifer, and R. Vishny, "Law and Finance," *Journal of Political Economy*, CIV (1998), 1113–1155

Claessens, S., Djankov, S., Lang, L., 2000. "The separation of ownership and control in East Asian Corporation." *Journal of Financial Economics* 58, 81–112.

Bertrand, M., S. Johnson, K. Samphantharak and A. Schoar, "Mixing Family With Business: A Study of Thai Business Groups and the Families Behind Them," *The Journal of Financial Economics*, June 2008, 88 (3), 466-498.

Student presentation:

Bertrand, M., Schoar, A., 2006. "The role of family in family firms," *Journal of Economic Perspectives* 20, 73–96.