

RSM3010: Special Topics in the Economics of Technology and Innovation

University of Toronto

Professors: April Franco/Matt Mitchell
Office: RT8020/RT8012
Office hours: Thursdays 11 a.m. to noon or by appointment
Email: April.Franco@Utoronto.Ca/Matthew.Mitchell@Rotman.Utoronto.CA
Telephone: (416) 946-3133/(416) 946-3149
Class day/time: Thursdays 1:00 p.m. to 3:30 p.m. (No class on Sept. 29)
Class location: RT570

Course Description:

The main intention of this course is to deliver students with a working knowledge of research in this area by studying some of the canonical work (both theoretical and empirical) and then exploring some of the frontier work. This will provide students both the basis on which to identify some of the important research questions as well as an understanding of the techniques that could be employed to address them. This course will focus on the following broad topics: Incentives to innovation (including patents and rewards), growth theory, and spin-outs.

Evaluation:

Students will be evaluated on the basis of how well he or she understands the course materials. Each student will do an in-class presentation of a paper (this could be with one of the papers on the reading list or one chosen in consultation with the instructors). Prior to the presentation, the student will be required to submit both a report of the paper and a slide deck for the presentation. Each part of this will be evaluated. The report will be worth 20% of the final grade and the slide deck and presentation will be worth 20%. In addition, students will develop and submit a research proposal. The proposal will compromise 60% of the final grade and must include an introduction highlighting the research question and why it is interesting, a literature review, and a discussion of modelling possibilities and testing.

Tentative Course Topics (roughly corresponding to the first 9 sessions)

Session	Topic	Readings
1	Introduction: Some Classic Economics of Innovation	Kremer, Michael, "Patent Buyouts: A Mechanism for Encouraging Innovation," <i>Quarterly Journal of Economics</i> , 113 (1998), 1137-1167.
2	Growth Theory 1: Modelling Innovation	Grossman, Gene M., and Elhanan Helpman. "Quality ladders in the theory of growth." <i>The Review of Economic Studies</i> 58.1 (1991): 43-61. Jones, B. 2009. The Burden of Knowledge and the 'Death of the Renaissance Man': Is Innovation Getting Harder? <i>Review of Economic Studies</i> 76 (1): 283-317.

3	Growth Theory 2: Competition and Innovation	<p>Aghion, P., N. Bloom, R. Blundell, R. Griffith, P. Howitt 2005. Competition and Innovation: An Inverted U-Relationship. Quarterly Journal of Economics 120(2): 701-728.</p> <p>Acemoglu, D., U. Akcigit, and M. Celik Young, Restless and Creative: Openness to Disruption and Creative Innovations, Working Paper</p> <p>Igami, M., Estimating the Innovator's Dilemma: Structural Analysis of Creative Destruction in the Hard Disk Drive Industry, 1981-1998 (October 14, 2015), the Journal of Political Economy,</p> <p>Goettler, R., and B. Gordon, 2011. Did AMD Spur Intel to Innovate More? Journal of Political Economy,</p>
4	Micro Models of Patent Policy: static distortions (Also have one about dynamic stuff?)	<p>Scotchmer, Suzanne, "On the Optimality of the Patent Renewal System," Rand Journal of Economics, 30 (1999), 181-196.</p> <p>Cornelli, Francesca, and Mark Schankerman, "Patent Renewals and R&D Incentives," Rand Journal of Economics, 30 (1999), 197-213.</p> <p>Weyl, E. Glen, and Jean Tirole. "Market power screens willingness-to-pay." Quarterly Journal of Economics, Forthcoming (2012).</p>
5	Patent Policy: Evidence	<p>Kortum, S. and J. Lerner 1998. Stronger Protection or Technological Revolution: What is Behind the Recent Surge in Patenting? Carnegie Rochester Conference Series on Public Policy, 48, 247-304.</p> <p>Intellectual Property Rights and Innovation: Evidence from the Human Genome 2013, Journal of Political Economy 121(1): 1-27</p> <p>Moser, P. 2005. How Do Patent Laws Influence Innovation? Evidence from Nineteenth Century World Fairs American Economic Review</p> <p>Alberto Galasso and Mark Schankerman Patents and Cumulative Innovation: Causal Evidence from the Courts The Quarterly Journal of Economics (2015) 130 (1): 317-369</p>
6	Intrafirm incentives	<p>Manso, Gustavo. "Motivating innovation." The Journal of Finance 66.5 (2011): 1823-1860.</p> <p>Balsmeier, Benjamin, Lee Fleming, and Gustavo Manso. Independent boards and innovation. Working paper, 2015.</p> <p>Balsmeier, Benjamin, Lee Fleming, and Gustavo Manso. Heterogeneous Innovation over the Business Cycle. Working paper, 2015.</p>
7	Interfirm incentives	<p>Franco, A., & Filson, D. (2006). Spin-Outs: Knowledge Diffusion through Employee Mobility. The RAND Journal of Economics, 37(4), 841-860.</p> <p>Bell, A., R. Chetty, X. Jaravel, N. Petkova, J. Van Reenen 2015. The Lifecycle of Inventors, Working Paper</p>
8	Markets for Innovations	<p>Serrano, Carlos J. "The dynamics of the transfer and renewal of patents." The RAND Journal of Economics 41.4 (2010): 686-708.</p> <p>Akcigit, Ufuk, Murat Alp Celik, and Jeremy Greenwood. Buy, keep or sell: Economic growth and the market for ideas. No. w19763. National Bureau of Economic Research, 2013.</p> <p>Lerner, J., and J. Tirole 2004. Efficient Patent Pools. American Economic Review 94(3): 691-711.</p>

