



HIGH TECHNOLOGY ENTREPRENEURSHIP

BA 990.03 (2936) **Spring 2021**

Instructor: Sharique Hasan, Associate Professor of Strategy, Duke University

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Time: Tuesday, 2:00 pm to 5:00pm

Course Dates: January 26th to April 20th, 2021

Location: Zoom

Link/Login Information:

Topic: High Technology Entrepreneurship (Duke Strategy PhD)

Time: This is a recurring meeting Meet anytime

Summary: This course provides Ph.D. students in strategic management and related disciplines an introduction to research on entrepreneurship and entrepreneurial strategy. The goal of the course is to provide students with training on how to write high-quality research articles that elucidate new insights into entrepreneurial strategy, process, and policy.

Evaluation:

Grading	Percent
Attendance	20%
Weekly writing	60%
Editing	20%

Participation (20%): Each week we will discuss several assigned papers. Prior to each class you must read and analyze the required articles. Expectations of thorough preparation are very high: you are expected to actively participate in each class. You will be judged on the quality of your contribution to our collective effort of understanding the research. I do not want "hot takes" but rather thoughtful analyses that shed light on some insight about the entrepreneurial process that we learn from through the articles we read, both individually and collectively.

Writing (60%): The bulk of your grade will be weekly writing assignments. Of the three or four papers that are assigned each week, I will choose **one** and you will have to re-write *the introduction* of the paper based on your understanding of the article, its motivation, theoretical argumentation, findings, and contribution to both the academic literature as well as to practice. Please use Overleaf to write your introduction. Make sure to include citations. I will grade your re-write with one of four scores: (1) Significantly below the quality of the original article's introduction; (2) below the quality of the original; (3) at the same level of quality as the original; and (4) better than the original article. **NOTE:** For the first assignment, please see that it is different since you will be watching a few documentaries and listening to podcasts.

Editing (20%): You will be assigned one of your peer's article introductions to review and provide feedback. Your task is to help them improve the quality of their writing by providing them rigorous critique and guidance on what could be improved. Print out the article and mark it up with as much feedback as you can provide. I will use your feedback as the basis for my own grading. I want you to focus both the quality of exposition as well as the structure of their logic and argumentation.

Course Schedule:

Class	Date	Class
1	January 26, 2021	Silicon Valley and Modern High-Tech Entrepreneurship
2	February 2 , 2021	Classic readings in entrepreneurship
3	February 9, 2021	Who becomes an entrepreneur? (Part I)
4	February 16, 2021	Who becomes an entrepreneur? (Part II)
5	February 23, 2021	Who becomes an entrepreneur? (Part III)
6	March 2, 2021	Entrepreneurial ideas
7	March 9, 2021	Science and entrepreneurship
8	March 16, 2021	Initial conditions and entrepreneurial success
9	March 23, 2021	The growth of entrepreneurial firms
10	April 6, 2021	The impact of venture capital
11	April 13, 2021	How venture capital works
12	April 20, 2021	Frictions and bias in entrepreneurship

Class 1: Silicon Valley and Modern High-Tech Entrepreneurship

January 26, 2021

For the first class, I want you to watch four documentaries about entrepreneurship, and listen to two podcasts about entrepreneurship. These are linked here:

Something Ventured:

<https://www.youtube.com/watch?v=QfdUXodNghI>

Triumph of the Nerds

<https://www.youtube.com/watch?v=rrC722gKClc>

<https://www.youtube.com/watch?v=ySqEvijSDGE>

<https://www.youtube.com/watch?v=WpdhFAKPsT4>

Silicon Cowboys:

<https://www.youtube.com/watch?v=gTlIS1J7qCY>

The Lip Bar: Melissa Butler

<https://www.npr.org/2020/11/20/937079808/the-lip-bar-melissa-butler>

Beyond Meat: Ethan Brown

<https://www.npr.org/2017/02/16/515420148/live-episode-beyond-meat-ethan-brown>

ASSIGNMENT

Your first assignment is to watch each of these documentaries. Your task is to submit a list of 5 ideas for research questions and how you might go about testing them and what we could learn from answering these questions that may be broader than the narrow question you have posed.

Class 2: Classic readings in entrepreneurship

February 2, 2021

Required Readings

Kirzner, I.M. 1997. Entrepreneurial discovery and the competitive market process: An Austrian approach. *Journal of Economic Literature*, 35: 60-85.

Knight, F. 1921. Risk uncertainty and profits: Boston: Houghton Mifflin. Parts III, Chapter 9.
<http://www.econlib.org/library/Knight/knRUP.html>.

Schumpeter, J. 1947. The Creative Response in Economic History. *Journal of Economic History* Volume 7(2). 149-159

(X) Shane, S. & Venkataraman, S. 2000. The promise of entrepreneurship as a field of research. *Academy of Management Review*, 25(1): 217-226.

Class 3: Who becomes an entrepreneur? (Part I)

February 9, 2021

Required Readings

Jovanovic, Boyan (1994): "Firm formation with heterogeneous management and labor skills." *Small Business Economics*, 6(3):185-191.

Åstebro, Thomas, Jing Chen, and Peter Thompson (2008): "Stars and misfits: Self-Employment and Labor Market Frictions." *Management Science*, 57:1999-2017 (November 2011).

(X) Hellman, Thomas (2007): "When do employees become entrepreneurs?" *Management Science*, 53(6):919-933.

Klepper, Steven and Sally D. Sleeper (2005): "Entry by spinoffs." *Management Science*, 51(8):1291-1306.

Class 4: Who becomes an entrepreneur? (Part II-Risk taking, skills, taste)

February 16, 2021

Required Readings

Hamilton, Barton (2000): "Does entrepreneurship pay? An empirical analysis of the returns to self-employment," *Journal of Political Economy*, 108:604-31

Vereshchagina, Galina, and Hugo A. Hopenhayn (2009): "Risk taking by entrepreneurs." *American Economic Review*, 99(5):1808-1830

Lazear, Edward P. (2002): "Entrepreneurship." *Journal of Labor Economics*, 23(4):649-680.

(X) Åstebro, Thomas, and Peter Thompson (2008): "Entrepreneurs: Jacks of all trades or hobos?," *Research Policy*, 40:637-664 (June 2011).

Class 5: Who becomes an entrepreneur? (Part III)

February 23, 2021

Required Readings

Camerer, Colin, and D. Lovallo (1999): "Overconfidence and excess entry: An experimental approach." *American Economic Review*, 89:306-318

Lindh, Thomas, and Henry Ohlsson (1996): "Self-employment and windfall gains: evidence from the Swedish lottery." *Economic Journal*

Hegde, Deepak, and Justin Tumlinson. "Information frictions and entrepreneurship." *Strategic Management Journal* (2020).

(X) Lyons, Elizabeth, and Laurina Zhang. "Who does (not) benefit from entrepreneurship programs?." *Strategic Management Journal* 39.1 (2018): 85-112.

Class 6: Entrepreneurial ideas and process

March 2, 2021

Required Readings

(X) Bennett, Victor M., and Aaron K. Chatterji. "The entrepreneurial process: Evidence from a nationally representative survey." *Strategic Management Journal* (2019).

Hasan, Sharique, and Rembrand Koning. "Conversations and idea generation: Evidence from a field experiment." *Research Policy* 48.9 (2019): 103811

Camuffo, Arnaldo, et al. "A scientific approach to entrepreneurial decision making: Evidence from a randomized control trial." *Management Science* 66.2 (2020): 564-586.

Koning, Rembrand, Sharique Hasan, and Aaron Chatterji. Experimentation and startup performance: Evidence from A/B testing. No. w26278. National Bureau of Economic Research, 2019.

Class 7: Science and entrepreneurship

March 9, 2021

Required Readings

Zucker, Lynne G., Michael R. Darby, and Jeff S. Armstrong. "Commercializing knowledge: University science, knowledge capture, and firm performance in biotechnology." *Management science* 48.1 (2002): 138-153.

Rothaermel, Frank T., Shanti D. Agung, and Lin Jiang. "University entrepreneurship: a taxonomy of the literature." *Industrial and corporate change* 16.4 (2007): 691-791.

Toole, Andrew A., and Dirk Czarnitzki. "Commercializing science: is there a university "brain drain" from academic entrepreneurship?" *Management science* 56.9 (2010): 1599-1614.

(X) Cohen, Wesley M., Henry Sauermann, and Paula Stephan. "Not in the job description: The commercial activities of academic scientists and engineers." *Management Science* 66.9 (2020): 4108-4117.

Agarwal, Rajshree, and Atsushi Ohyama. "Industry or academia, basic or applied? Career choices and earnings trajectories of scientists." *Management Science* 59.4 (2013): 950-970.

Class 8: Social dimensions of entrepreneurship

March 16, 2021

Required Readings

(X) Chatterji, Aaron, Solene Delecourt, Sharique Hasan and Rembrand Koning "When does advice impact startup performance?." *Strategic Management Journal* 40.3 (2019): 331-356.

Dimitriadis, Stefan and Koning, Rembrand. Social Skills Improve Business Performance: Evidence from a Randomized Control Trial with Entrepreneurs in Togo (June 25, 2020). Available at SSRN: <https://ssrn.com/abstract=3459643> or <http://dx.doi.org/10.2139/ssrn.3459643>

Nanda, Ramana, and Jesper B. Sørensen. "Workplace peers and entrepreneurship." *Management Science* 56.7 (2010): 1116-1126.

Hasan, Sharique, and Rembrand Koning. "Prior ties and the limits of peer effects on startup team performance." *Strategic Management Journal* 40.9 (2019): 1394-1416.

Class 9: Improving entrepreneurial performance and growth

March 23, 2021

Required Readings

Hallen, Benjamin L., Christopher B. Bingham, and Susan Cohen. "Do accelerators accelerate? A study of venture accelerators as a path to success?." *Academy of management proceedings*. Vol. 2014. No. 1. Briarcliff Manor, NY 10510: Academy of Management, 2014.

(X) Yu, Sandy. "How do accelerators impact the performance of high-technology ventures?." *Management Science* 66.2 (2020): 530-552.

Anderson, Stephen J. & McKenzie, David J., 2020. "Improving Business Practices and the Boundary of the Entrepreneur : A Randomized Experiment Comparing Training, Consulting, Insourcing and Outsourcing," Policy Research Working Paper Series 9502, The World Bank.

McKenzie, D., Woodruff, C., Bjorvatn, K., Bruhn, M., Cai, J., Gonzalez-Uribe, J., ... & Valdivia, M. (2020). Training Entrepreneurs. *VoxDevLit*, 1(1), 3.

Class 10: The impact of capital

April 6, 2021

Required Readings

De Mel, Suresh, David McKenzie, and Christopher Woodruff. "Returns to capital in microenterprises: evidence from a field experiment." *The Quarterly Journal of Economics* 123.4 (2008): 1329-1372.

(X) Hsu, David H. "What do entrepreneurs pay for venture capital affiliation?." *The Journal of Finance* 59.4 (2004): 1805-1844.

Hochberg, Yael V., Alexander Ljungqvist, and Yang Lu. "Whom you know matters: Venture capital networks and investment performance." *The Journal of Finance* 62.1 (2007): 251-301.

Class 11: How venture capital works (or doesn't)

April 13, 2021

Required Readings

(X) Bernstein, Shai, Arthur Korteweg, and Kevin Laws. "Attracting early-stage investors: Evidence from a randomized field experiment." *The Journal of Finance* 72.2 (2017): 509-538.

Gompers, Paul A., et al. "How do venture capitalists make decisions?." *Journal of Financial Economics* 135.1 (2020): 169-190.

Ewens, Michael, Ramana Nanda, and Matthew Rhodes-Kropf. "Cost of experimentation and the evolution of venture capital." *Journal of Financial Economics* 128.3 (2018): 422-442.

Class 12: Frictions and bias in entrepreneurship

April 20, 2021

Required Readings

(X) Cao, Ruiqing and Koning, Rembrand and Nanda, Ramana, Biased Sampling of Early Users and the Direction of Startup Innovation (November 19, 2020). Harvard Business School Entrepreneurial Management Working Paper No. 21-059, Harvard Business School Strategy Unit Working Paper No. 21-059, Available at SSRN: <https://ssrn.com/abstract=3736119> or <http://dx.doi.org/10.2139/ssrn.3736119>

Chatterji, Aaron K., and Robert C. Seamans. "Entrepreneurial finance, credit cards, and race." *Journal of Financial Economics* 106.1 (2012): 182-195.

Kanze, Dana, et al. "We ask men to win and women not to lose: Closing the gender gap in startup funding." *Academy of Management Journal* 61.2 (2018): 586-614.