

# Applications in Entrepreneurial Finance: Fintech

Fall 2018

Section 1: Mon-Wed 2-3:15 pm

Section 2: Mon-Wed 3:30-4:45 pm

Location: TBD

Professor Sabrina Howell

Office: KMC 9-93

Email: showell@stern.nyu.edu

TA: TBD

Email: TBD

## Syllabus – as of 05/04/2018

This course has two objectives: (1) introduce you to the financing lifecycle of high-growth new ventures (i.e. startups); and (2) introduce the key technologies, business models, and companies of the startup fintech landscape.

This class is very applied and is intended for students who are potentially interested in working at, founding, or investing in early stage startups in the fintech sector. We will roughly follow a successful startup's path from founding through the stages of new venture finance. These include the "VC method" of valuation, the venture capital industry, and finally how entrepreneurs and investors realize returns. Entrepreneurial finance is all about making decisions in situations of substantial uncertainty, requiring a careful balance of qualitative and quantitative approaches.

At the same time, we will examine the key components of the evolving fintech sector, including new instruments for financing early stage enterprises, such as initial coin offerings and equity crowdfunding. While "financial technology" has been around since King Alyattes of Lydia minted the first coin around 600 BC, fintech today refers to the application of information technology to finance. It has become an important new sector for high-growth startups. In 2017, funding to finance-related startups by venture capitalists, private equity investors, angel investors, and corporate venture arms totaled about \$2.5 billion, across 244 deals.

In this class, we will consider the following subsectors, where startups are either seeking to displace incumbents or sell them their services: Bitcoin/Ethereum (and ICOs); personal finance; equity crowdfunding; lending; payments; insurance; and remittances. Blockchain, peer-to-peer platforms, and artificial intelligence (e.g. machine learning) are key

technologies underlying many of the new business models. Greater weight will be placed on blockchain than on other topics.

We will use a mixture of lectures, guest speakers, and hands-on simulation. The scheduled outside speakers are a mix of entrepreneurs and investors. Please note that scheduling conflicts arise often for these busy individuals. We should expect some of the speakers to reschedule or cancel.

Due to the inherently ambiguous nature of the subject matter, this course will be much less mathematical than most finance courses. Your grade will also depend in substantial part on class participation. If you are uncomfortable with qualitative or non-formulaic approaches to problems, or you prefer never to speak in class, then this course is not for you. However, you may submit questions or comments about the reading by email before class, and this will count towards your class participation grade. The email should be sent at least four hours before class begins and must have "Question for Class" as the subject line. I encourage you to ask the question you emailed during class.

In groups, you will develop a fintech startup business model. You will write a business plan, focusing on financials, in the middle of the semester and pitch the startup to guest judges at the end of the course. You can come up with your own idea or take on an existing idea from one of our guest speaker companies or any startup you find interesting. You are encouraged to try to build a mock-up website or product, though this is optional.

You are responsible for:

- A) Studying lecture materials for in-class quizzes and the midterm.
- B) Identifying thoughts or questions about assigned reading to bring up in class.
- C) Preparing your startup deliverables in your groups.
- D) Attending class.

Readings range from academic research papers to magazine articles and blogs.

Grading is as follows:

- A) In-class quizzes (10%)
- B) Midterm Exam (30%)
- C) Class participation/attendance (including pre-class submitted questions) (30%)
- D) Startup financial plan and pitch (30%)

Quizzes will be about 15 min each, in-class. Material will cover the previous 3 lectures, to be announced.

Class Rules:

- A) Have a name card.
- B) Keep computers, tablets, and phones out of sight.

C) No make-up quizzes.

Office hours are Monday, 5-6 pm, and Tuesday, 4-5 pm in KMC 9-93.

## **CLASS TOPICS**

*Note: Entrepreneurial finance and fintech topics are interspersed. The order below is an illustration.*

1. Intro and fintech landscape
2. Equity crowdfunding
3. VC valuation
4. Bitcoin
5. Mortgages
6. Blockchain
7. VC securities
8. Term sheets
9. Initial Coin Offerings
10. VC partnerships, fundraising, and distribution/compensation
11. Robo-advising
12. Payments, remittances & financial inclusion
13. Exits & value creation
14. IPO process

## **FURTHER READING**

(Note: I have these in my office – ask me if you'd like to borrow one)

1. Feld, Brad and Jason Mendelson. (2011). *Venture Deals*. Wiley & Sons.
2. Damodaran, A. (2009). *The dark side of valuation: Valuing young, distressed, and complex businesses*. Ft Press.
3. Smith, J., Smith, R. L., Smith, R., & Bliss, R. (2011). *Entrepreneurial finance: strategy, valuation, and deal structure*. Stanford University Press.
4. Ries, E. (2011). *The lean startup: How today's entrepreneurs use continuous innovation to create radically successful businesses*. Random House LLC.
5. Metrick, A. and A. Yasuda. (2010). *Venture Capital and the Finance of Innovation*. Wiley.
6. Meyer, M. H., & Crane, F. G. (2010). *Entrepreneurship: An innovator's guide to startups and corporate ventures*. SAGE Publications.
7. Ralston, Geoff. 2015. "A Guide to Seed Fundraising." Online book, <http://www.themacro.com/articles/2016/01/how-to-raise-a-seed-round/>
8. Lerner, Josh, Ann Leamon, and Felda Hardyman. *Venture Capital, Private Equity, and the Financing of Entrepreneurship*. New York: John Wiley & Sons, 2012.
9. Diedrich, Henning. *Ethereum*. Wildfire publishing, 2016.

10. Skinner, Chris. *Digital Bank: Strategies to Launch or Become a Digital Bank*. Marshall Cavendish, 2014.
11. Antonopoulos, Andreas M. *Mastering Bitcoin: unlocking digital cryptocurrencies*. O'Reilly Media, 2014.
12. Haycock, James. *Bye Bye Banks?: How Retail Banks are Being Displaced, Diminished and Disintermediated by Tech Startups and What They Can Do to Survive*.
13. Tapscott, Don. *Blockchain Revolution: How the Technology Behind Bitcoin Is Changing Money, Business, and the World*. Portfolio, 2016.
14. McMillan, Jonathan. *The End of Banking: Money, Credit, and the Digital Revolution*. Zero/One Economics, 2014.
15. Mougayar, William. *The Business Blockchain*. Wiley, 2016.
16. Sironi, Paolo. *FinTech Innovation: From Robo-Advisors to Goal Based Investing and Gamification* (The Wiley Finance Series), Wiley, 2016.