Applications in Entrepreneurial Finance: Fintech

FINC-GB 3362 30 (Also FINC-UB 62 Section 2)
Wednesdays, 6:00 – 9:00 pm

SYLLABUS

Professor: **Sabrina Howell**
Office: KMC 9-93
Office hours: Tuesday, 3-5 pm and Friday, 8-9 am (virtual sign-up sheet for 15 min slots)
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Teaching Assistant: TBD

Teaching Mode: In Person

OVERVIEW

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

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. Guest speakers will shed light on what is happening "on the ground" from both the VC and the entrepreneur perspectives. 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 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. This semester, greater weight will be placed on blockchain and fintech in small business lending 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. After each lecture, a link to the recording will be posted on the Brightspace class website.

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 on class participation. If you are uncomfortable with qualitative or non-formulaic approaches to problems, 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 you class participation grade IF you attend class that day. 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 financial/fundraising plan in the middle of the semester and pitch the startup 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) Attending and participating in class.
    B) Identifying thoughts or questions about assigned reading to bring up in class.
    C) Studying lecture materials for the midterm.
    D) Preparing you startup deliverables in your groups.

Grading is as follows:
    A) Midterm Exam (30%)
    B) Class participation/attendance (35%)
    C) Startup financial plan and pitch (35%)

The midterm will be in-class and take half the class period. If you must miss this class due to a personal emergency, you will take an entirely different test on a different date. You will need to provide both a signed note and contact information for a doctor or member of the Stern administration to confirm the need for your absence.

The required reading listed under each session must be completed *before* that session. Readings range from academic research papers to magazine articles and blogs. **You will need to buy Mills, Karen G. *Fintech, Small Business & the American Dream: How Technology Is Transforming Lending and Shaping a New Era of Small Business Opportunity*. Springer, 2019.** This is at the NYU bookstore under this course.

Especially if you are particularly interested in the entrepreneurial finance aspect of this course, you may also consider buying Da Rin, Marco and Thomas Hellman. *Fundamentals of Entrepreneurial Finance.* Oxford, 2020.

CLASS SCHEDULE

1. Wednesday, February 9
    a. Topic 1: Introduction; Overview of the fintech landscape
    b. Topic 2: Equity crowdfunding
    c. Topic 3: Small business lending and fintech in the PPP program

2. Wednesday, February 16
    a. Topic 1: VC valuation

3. Wednesday, February 23
    a. Topic 1: VC valuation -- deep-dive into fintech examples
    b. Startup project group discussions (in breakout groups, you will briefly explain your idea, and receive feedback from peers)

4. Wednesday, March 2
    a. Topic 1: Bitcoin & blockchains

5. Wednesday, March 9
    a. Topic 1: VC securities

No Class March 16 (Spring Break)

6. Wednesday, March 23
    a. Topic 1: Term sheets

7. Wednesday, March 30
    a. Topic 1: Midterm
    b. Topic 2: Blockchain applications

8. Wednesday, April 6
    a. Topic 1: Payments, remittances & financial inclusion
    b. Topic 2: Strategic investments in payments
    c. Topic 3: Discussion of financial plan for startup project requirements

9. Wednesday, April 13
    a. Topic 1: VC partnerships and discount rates

10. Wednesday, April 20
    a. Topic 1: ICOs and NFTs
    b. Topic 2: Data science behind fintech

11. Wednesday, April 27
    a. Topic 1: IPO Process

12. Wednesday, May 4

a. Topic 1: Startup Project pitches

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 Hardymon. *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.
17. King, Michael R. and Richard W. Nesbitt (eds). *The Technological Revolution in Financial Services: How Banks, FinTechs, and Customers Win Together*. University of Toronto Press, 2020.
18. Hsu, Sara and Jianjun Li. *China's Fintech Explosion: Disruption, Innovation, and Survival.* Columbia Business School Publishing, 2020.

STERN POLICIES

ACADEMIC INTEGRITY

Our undergraduate Academics Pillar states that ***we take pride in our well-rounded education and approach our academics with honesty and integrity***. Indeed, integrity is critical to all that we do here at NYU Stern. As members of our community, all students agree to abide by the NYU Stern Student Code of Conduct, which includes a commitment to:

- Exercise integrity in all aspects of one's academic work including, but not limited to, the preparation and completion of exams, papers and all other course requirements by not engaging in any method or means that provides an unfair advantage.
- Clearly acknowledge the work and efforts of others when submitting written work as one's own. Ideas, data, direct quotations (which should be designated with quotation marks), paraphrasing, creative expression, or any other incorporation of the work of others should be fully referenced.
- Refrain from behaving in ways that knowingly support, assist, or in any way attempt to enable another person to engage in any violation of the Code of Conduct. Our support also includes reporting any observed violations of this Code of Conduct or other School and University policies that are deemed to adversely affect the NYU Stern community.

The entire Stern Student Code of Conduct applies to all students enrolled in Stern courses and can be found here: www.stern.nyu.edu/uc/codeofconduct

To help ensure the integrity of our learning community, prose assignments you submit to NYU Classes will be submitted to Turnitin. Turnitin will compare your submission to a database of prior submissions to Turnitin, current and archived Web pages, periodicals, journals, and publications. Additionally, your document will become part of the Turnitin database.

GENERAL CONDUCT & BEHAVIOR

Students are also expected to maintain and abide by the highest standards of professional conduct and behavior. Please familiarize yourself with Stern's Policy in Regard to In-Class Behavior & Expectations (http://www.stern.nyu.edu/portal-partners/current-students/undergraduate/resources-policies/academic-policies/index.htm) and the NYU Student Conduct Policy (https://www.nyu.edu/about/policies-guidelines-compliance/policies-and-guidelines/university-student-conduct-policy.html).

GRADING GUIDELINES

Grading Information for Stern **Elective Courses**

At NYU Stern, we strive to create courses that challenge students intellectually and that meet the Stern standards of academic excellence. To ensure fairness and clarity of grading, the Stern faculty have agreed that for elective courses the individual instructor or department is responsible for determining reasonable grading guidelines.

STUDENT ACCESSIBILITY

If you will require academic accommodation of any kind during this course, you must notify me at the beginning of the course (or as soon as your need arises) and provide a letter from the Moses Center for Student Accessibility

(212-998-4980, mosescsa@nyu.edu) verifying your registration and outlining the accommodations they recommend. For more information, visit the CSA website: https://www.nyu.edu/students/communities-and-groups/student-accessibility.html

STUDENT WELLNESS
Classes can get stressful. I encourage you to reach out if you need help. The NYU Wellness Exchange offers mental health support. You can reach them 24/7 at 212 443 9999, or via the "NYU Wellness Exchange" app. There are also drop in hours and appointments. Find out more at: http://www.nyu.edu/students/health-and-wellness/counseling-services.html

NAME PRONUNCIATION AND PRONOUNS
NYU Stern students now have the ability to include their pronouns and name pronunciation in Albert. I encourage you to share your name pronunciation and pronouns this way.   Please utilize this link for additional information: Pronouns & Name Pronunciation

RELIGIOUS OBSERVANCES AND OTHER ABSENCES
NYU's Calendar Policy on Religious Holidays states that members of any religious group may, without penalty, absent themselves from classes when required in compliance with their religious obligations. You must notify me in advance of religious holidays or observances that might coincide with exams, assignments, or class times to schedule mutually acceptable alternatives. Students may also contact religiousaccommodations@nyu.edu for assistance.

NYU Stern is committed to ensuring an equitable educational experience for all students regardless of identity or circumstances and strives to recognize the obligations its students have outside of Stern. Please review all class dates at the start of the semester and review all course requirements to identify any foreseeable conflicts with exams, course assignments, projects, or other items required for participation and attendance. If you are aware of a potential conflict, please contact me as soon as possible to discuss any potential conflicts to determine whether/how they can be accommodated.

INCLUSION STATEMENT
This course strives to support and cultivate diversity of thought, perspectives, and experiences. The intent is to present materials and activities that will challenge your current perspectives with a goal of understanding how others might see situations differently. By participating in this course, it is the expectation that everyone commits to making this an inclusive learning environment for all.