

Applications in Entrepreneurial Finance: Fintech

2023 SYLLABUS

FINC-GB 3362 20/FINC-UB 62

Tuesdays, 1:30 – 4:20 pm, KMC 3-70

Professor: **Sabrina Howell**

Office: KMC 9-93

Office hours: Mondays, 8-11 AM (virtual). Sign up [here](#).

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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. It is taught at the Introductory level: If you have already taken classes on VC, private equity, or fintech (e.g. Blockchain), some material is likely to be review for you. 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.

Guest speakers will shed light on what is happening “on the ground” from both the VC and the entrepreneur perspectives.

We will consider the following subsectors, where startups are either seeking to displace incumbents or sell them their services: Bitcoin/Ethereum/NFTs; 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.

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. For review, lectures will be posted online after class ends.

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 your startup deliverables in your groups.

Grading is as follows:

- A) Quizzes (30%)
- B) Class participation (20%)
- C) Attendance (15%)
- D) Startup Project (35% total): financial plan (10%), background memo (5%), and pitch (20%)

All intermediate grading will be done on a curve. However, for the final grade, because this is an elective, I am not strictly required to adhere to a particular curve.

There will be no make-up quizzes. If you miss one, you can focus on participating more in subsequent classes. Such effort will be noted. This policy maximizes fairness to all students, since in the end it is impossible to verify sickness, family engagements, interviews, etc. For non-quiz classes, if you need to miss a class, please email the TA in advance to explain the conflict. We expect students to prioritize attendance, so while one conflict may be unavoidable, we hope that you will try to schedule your other obligations so as not to conflict with classtime.

The required reading listed under each session must be completed *before* that session. Readings range from academic research papers to magazine articles and blogs.

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 – NOTE: GUEST SPEAKERS REMOVED

1. Tuesday, January 31
 - a. Topic 1: Introduction; Overview of the fintech landscape
 - b. Topic 2: Equity crowdfunding
 - c. Required Reading:
 - i. Introduction of Catalini, Christian and Xiang Hui. “Online Syndicates and Startup Investment.” 2018.
 - ii. SEC. “Updated Investor Bulletin: Regulation Crowdfunding for Investors.” 2022.
 - iii. Szkutak, Rebecca. “A flat year for crowdfunding isn’t a bad sign at all for early-stage startups.” 2023. Techcrunch.

2. Tuesday, February 7
 - a. Startup project explanation (must form groups by Feb 14)
 - b. Topic 1: Fintech in small business lending
 - c. Topic 2: Acquire-Invest-Abandon with Fintech SMB Lenders
 - d. Required Reading:
 - i. Chapters 1, 3, 4, 7 of 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.

- ii. Introduction of Howell, Sabrina, Theresa Kuchler, David Snitkof, Johannes Stroebel, and Jun Wong. " Lender Automation and Racial Disparities in Credit Access." 2022. Forthcoming in the *Journal of Finance*.
- iii. Fintech SMB Lenders profiles

Startup Project Groups formed by Feb 14

- 3. Tuesday, February 14
 - a. Topic 1: VC valuation
 - b. Topic 2 (valuation practice!): Buy Now, Pay Later & Kabbage (or, on your own time)
 - d. Required Reading:
 - i. Neighborly articles
 - ii. Schwerin, Mac. "The Buy Now, Pay Later Bubble is About to Burst." 2023. *The Atlantic*.
- 4. Tuesday, February 21
 - a. Quiz 1 (covers classes 1-3)
 - b. Topic 1: Bitcoin & blockchains
 - c. No required reading
- 5. Tuesday, February 28
 - a. Guest Speaker: Darren Yee to explain NYU entrepreneurial resources; former founder, current IT/consumer products lead at the NYU Innovation Fund, (1:30-1:45 pm)
 - b. Finish Bitcoin & blockchains if need be
 - c. Topic 1: NFTs
 - e. Required Reading:
 - i. Wiener, Anna. "Money in the Metaverse." 2022. *The New Yorker*.
 - ii. Greshko, Michael. "What are NFTs, and how do they work?" 2023. *National Geographic*.
- 6. Tuesday, March 7
 - a. Topic 1: VC securities
 - b. Startup project group discussions with worksheet (in breakout groups, you will briefly explain your idea, and receive feedback from peers)
 - c. Required Reading:
 - i. Hower, Lewis. "What Founders Should Know about Preferred Stock." Silicon Valley Bank.

No Class March 14 (Spring Break)

7. Tuesday, March 21
 - a. Quiz 2 (covers classes 4-6)
 - b. Topic 1: Term sheets & Roboadvicing
 - d. Optional Reading
 - i. David Haber “Jambalaya Software” Case StudyRequired Reading:
 - i. Introduction of Bian et al.. “Conflicting Fiduciary Duties and Fire Sales of VC-backed Start-ups.” 2022.

Startup Project Deliverable: Financial plan due March 28 by 12 pm.

8. Tuesday, March 28
 - a. Topic 1: Finish Roboadvicing
 - b. Topic 2: VC partnerships and VC as an asset class
 - c. Required Reading:
 - i. Chapter 12 from Da Rin, Marco and Hellman, Thomas. *Fundamentals of Entrepreneurial Finance*. 2020.
9. Tuesday, April 4
 - a. Topic 1: Payments, remittances & financial inclusion
 - b. Topic 2: Startup Project pitch guidance
 - d. Required Reading:
 - i. Berg, Tobias et al. Introduction to “On the Rise of Payment Firms.” 2022.
 - ii. Xu, Chenzi and Jeffrey Repucci. “The Dirty Little Secret of Credit Card Rewards Programs.” *The New York Times*. 2023.
 - iii. Mashal, Mujib and Hari Kumar. “Where Digital Payments, Even for a 10-Cent Chai, Are Colossal in Scale.” *The New York Times*. 2023
10. Tuesday, April 11
 - a. Topic 1: IPO Process
 - b. Topic 2: Startup Project Pitch Guidance
 - d. Required Reading:
 - i. Introduction of Liu, Xiaoding and Jay R. Ritter. “Local Underwriter Oligopolies and IPO Underpricing.” *The Journal of Financial Economics*. 2011.

Startup Project Deliverable: Fintech subsector background reading due April 18 by 12 pm.

11. Tuesday, April 18

- a. Quiz 3 (covers classes 7-10)
- c. Topic 2: Acquire-Invest-Abandon with blockchain in financial services
- d. FIELD TRIP: At 2:30, we will leave class to walk to Rally Rd (446 Broadway, between Howard and Grand)
- d. Required Reading:
 - i. Slide deck on Blockchain Applications
 - ii. Bousquette, Isabelle. "Blockchain Fails to Gain Traction in the Enterprise". *The Wall Street Journal*. December 2022.
 - iii. Foley & Lardner. "The Fast Track: Using Blockchain to Trace Products Through the Supply Chain." 2021.

Startup Project Deliverable: PDF of Pitch Deck due April 25 by 12 pm.

12. Tuesday, April 25

- a. Startup Project pitches and discussion
- b. Required reading: Other groups' sector backgrounds

13. Tuesday, May 2

- a. Startup Project pitches and discussion
- b. Required reading: Other groups' sector backgrounds

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. Campbell, Dakin. (2022). *Going Public: How Silicon Valley Rebels Loosened Wall Street's Grip on the IPO and Sparked a Revolution*. Twelve.
3. Damodaran, A. (2009). *The dark side of valuation: Valuing young, distressed, and complex businesses*. Ft Press.
4. Smith, J., Smith, R. L., Smith, R., & Bliss, R. (2011). *Entrepreneurial finance: strategy, valuation, and deal structure*. Stanford University Press.
5. Ries, E. (2011). *The lean startup: How today's entrepreneurs use continuous innovation to create radically successful businesses*. Random House LLC.

6. Metrick, A. and A. Yasuda. (2010). *Venture Capital and the Finance of Innovation*. Wiley.
7. Meyer, M. H., & Crane, F. G. (2010). *Entrepreneurship: An innovator's guide to startups and corporate ventures*. SAGE Publications.
8. Ralston, Geoff. 2015. "A Guide to Seed Fundraising." Online book, <http://www.themacro.com/articles/2016/01/how-to-raise-a-seed-round/>
9. Lerner, Josh, Ann Leamon, and Felda Hardymon. *Venture Capital, Private Equity, and the Financing of Entrepreneurship*. New York: John Wiley & Sons, 2012.
10. Diedrich, Henning. *Ethereum*. Wildfire publishing, 2016.
11. Skinner, Chris. *Digital Bank: Strategies to Launch or Become a Digital Bank*. Marshall Cavendish, 2014.
12. Antonopoulos, Andreas M. *Mastering Bitcoin: unlocking digital cryptocurrencies*. O'Reilly Media, 2014.
13. Haycock, James. *Bye Bye Banks?: How Retail Banks are Being Displaced, Diminished and Disintermediated by Tech Startups and What They Can Do to Survive*.
14. Tapscott, Don. *Blockchain Revolution: How the Technology Behind Bitcoin Is Changing Money, Business, and the World*. Portfolio, 2016.
15. McMillan, Jonathan. *The End of Banking: Money, Credit, and the Digital Revolution*. Zero/One Economics, 2014.
16. Mougayar, William. *The Business Blockchain*. Wiley, 2016.
17. Sironi, Paolo. *FinTech Innovation: From Robo-Advisors to Goal Based Investing and Gamification* (The Wiley Finance Series), Wiley, 2016.
18. 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.
19. 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](tel:2124439999), 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.

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.