



COURSE INFORMATION

Course Number: MGT 843

Course Title: FinTech

Term and Year: Fall-1

Class Meeting Time, Day: Thursdays, 2:40-5:40pm.

Course Support: somfacultysupport@yale.edu

CONTACT INFORMATION

Professor(s)	TA(s)
Stephen C. Daffron Evans Hall, Room 5521 stephen.daffron@motivepartners.com 347-551-1999 Office Hours: By Appointment Marina Niessner Evans Hall, Room 4528 marina.niessner@yale.edu 203-432-3957 Office Hours: By Appointment	Andy Kim andy.kim@yale.edu
Review Sessions: September 18: Python setup September 25: Python code examples	

COURSE MATERIALS

Textbook(s): No textbook required

Readings: See Detailed Outline of Class Sessions.

Software: Python

COURSE DESCRIPTION AND OBJECTIVES

Course Description: The purpose of this course is to provide students with an opportunity to explore financial technology from four different perspectives: a disruptive technology company, an incumbent financial institution, societal effects and regulatory responses, and a private equity investor. The readings and class discussions will enable the students to understand how to both appreciate and integrate the perspectives into an economically and politically sophisticated understanding of financial technology. The course will be a mix of cases and lectures.

Course Objectives: Contact the Instructor.

COURSE REQUIREMENTS

Two Problem Sets	40%
Final Presentation/Writeup	40%
Attendance and Participation	20%

Please see the Yale SOM Grading Policy at <http://portal.som.yale.edu/page/grading-policy>

DESCRIPTIONS OF ASSIGNMENTS/PROJECTS/PROBLEM SETS

The assignments for the class will consist of two problem sets (to be done individually) and a final report/presentation (group assignment).

Problem Sets:

The first problem set (**due October 5 at 10:00am**) will involve working with text using Python and will employ some of the NLP methods that we examined in class. The homework will be accompanied by a TA session that will cover an introduction to Python.

For the second problem set **due electronically on or before October 10 at 9:00am**, you will be given a set of FinTech companies to select from, and you will need to do a first-stage **Investment Analysis** of one of them in a 1-page write up.

Final Presentation/Write-up

For the final assignment, your team (of 5 people) will need to choose a FinTech company from the list provided, perform an in-depth valuation of the firm, and prepare a write-up and a 10-minute presentation (followed by a 5-minute Q&A session from your classmates). The write-up is due October 12, in class.

DETAILED OUTLINE OF CLASS SESSIONS

Class 1: (August 31)

Overview:

We will discuss the underlying economic and financial parameters of Fintech and the current state of play from the different perspectives to be explored during the course.

Incumbent Perspective:

We will explore the rise of Fintech from the perspective of Fortune 500 financial institutions focusing on how those incumbents relate to the need for technical and financial innovation and how they interact with “fintech attackers”. Our guest for the session will be the Chief Technology and Operations Officer for a Fortune 500 firm.

Readings for the Class

Daffron, Stephen. Working Papers I. Motive Partners (2017).

Marous, Jim. "Banking vs. Fintech: A Business Case for 'Coopetition'." The Financial Brand (2016). thefinancialbrand.com/57121/banking-fintech-digital-partnership-success-strategy/.

Kashyap, Manoj. "Blurred lines: How FinTech is shaping Financial Services." PWC (2016). www.pwc.de/de/newsletter/finanzdienstleistung/assets/insurance-inside-ausgabe-4-maerz-2016.pdf.

Class 2: (September 7)

Regulatory and Societal Perspectives:

We will examine the societal impact of FinTech companies and explore how to strike a regulatory balance between mitigating negative externalities and encouraging entrepreneurial growth. Our guests will be the recent head of Fintech for the DFTC and the leader of the current fintech disruptor.

Readings for the Class

Ludwig, Eugene. "Four ways to make the regulatory regime better." American Banker (2017). www.americanbanker.com/opinion/four-ways-to-make-the-regulatory-regime-better.

Bandman, Jeffrey. "Real-Time Regulation and Blockchain Data: From Derivatives to Blockchain—A Regulator's Journey." Presentation at P2P Financial Systems Third International Workshop at the University College of London's Center for Blockchain Technologies (2017).

Schweitzer, Mark, and Brett Barkley. "Is 'Fintech' Good for Small Business Borrowers? Impacts on Firm Growth and Customer Satisfaction." Federal Reserve (2017). www.federalreserve.gov/conferences/files/is-fintech-good-for-small-business-borrowers.pdf.

"Interim Report on the Cumulative Impact on the Global Economy of Proposed Changes in the Banking Regulatory Framework." Institute of International Finance (2010). www.ebf-fbe.eu/uploads/10-Interim%20NCI_June2010_Web.pdf.

Class 3 (September 14)

Disruptive Fintech:

We will examine how financial technology has become a tsunami that increasingly affects every aspect of the global economy—from massive big data projects that drive health care spending on a national level to the ability of individual farmers in Kenya to get a market price for their crops. The exponential growth in the underlying technologies penetrates every segment of society: Fintech transforms the behavior of customers as they interact with financial products and simultaneously empowers companies to exploit that data in near real time for their own purposes. Some Fintech Disruptors are succeeding; many more are failing. We will discuss how Disruptors come into existence and what factors affect their success or failure. While the discussion will cross many different segments, we will focus on Blockchain companies in financial services. We will analyze how those

companies get business traction, obtain funding, and establish a track record that allows them to compete/cooperate with incumbents and other insurgents. Our guests will be practitioners and leaders of a number of Disruptive companies.

Readings for the Class

Courbe, Julien. "Financial services technology 2020 and beyond: Embracing disruption." PwC. www.pwc.com/gx/en/industries/financial-services/publications/financial-services-technology-2020-and-beyond-embracing-disruption.html.

Catalini, Christian, and Joshua Gans. "Some Simple Economics of the Blockchain." SSRN Working Paper 2874598 (2017).

"Four Blockchain Use Cases for Banks." FinTech Network (2017). blockchainapac.fintecnet.com/uploads/2/4/3/8/24384857/fintech_blockchain_report_v3.pdf.

Class 4 (September 21): the FinTech industry is the availability of "big data." What does big data mean and how do companies analyze it? In this class we will examine how to think of text as data, and look at several natural language processing (NLP) methods that are used to extract information from text. In particular, we will study Kensho, a successful FinTech startup that employs NLP methods as part of their business model. After an introduction to the firm by Patrick Wood, we will look into three NLP areas: keyword searches in documents, identification of industries and peer firms, and sentiment analysis. We will examine in which settings Kensho applies these methods, as well as look at how these questions have been approached in academic research.

Readings for the class:

Hoberg, Gerard, and Gordon Phillips. "Text-based network industries and endogenous product differentiation." *Journal of Political Economy* 124.5 (2016): 1423-1465.

Tetlock, Paul C. "All the news that's fit to reprint: Do investors react to stale information?" *The Review of Financial Studies* 24.5 (2011): 1481-1512.

Tetlock, Paul C. "Giving content to investor sentiment: The role of media in the stock market." *The Journal of Finance* 62.3 (2007): 1139-1168.

Loughran, Tim, and Bill McDonald. "When is a liability not a liability? Textual analysis, dictionaries, and 10-Ks." *The Journal of Finance* 66.1 (2011): 35-65.

Cookson, J. Anthony, and Marina Niessner. "Why Don't We Agree? Evidence from a Social Network of Investors." SSRN Working Paper 2754086 (2017).

Class 5 (September 28)

Valuation and Investment Processes:

The final, cumulative perspective we will examine is that of a private equity investor. This discussion is meant to jump start the teams' preparation for the final presentations as well as coach each student on drafting an initial investment memo. Building on all the classes to date, we will talk about how to look at a Fintech company, how to evaluate its technology versus that on offer in the current market—as well as that coming on line from its Fintech competitors. We will judge the likely effects of new regulations on the incumbents and the disruptors. And then, taking all of those factors into account, we will discuss how to profitably invest in such companies. Our guests will be leaders from existing PE firms who are focused on finance and technology.

Readings for the Class

Daffron, Stephen. Working Papers II. Motive Partners (2017).

Koller, Tim, Marc Goedhart, and David Wessels. "Measuring and Managing the Value of Companies." McKinsey & Company (2015): Valuing High Tech Companies. <http://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/valuing-high-tech-companies>

"Blockchain Investment Vehicles: The Future of Global Retail Investment." ConsenSys Blog (2016).

YALE SOM POLICIES

Please see the Yale School of Management Bulletin at <http://www.yale.edu/printer/bulletin/htmlfiles/som/rights-and-responsibilities-of-students.html> for Rights and Responsibilities of students and for information on requesting a course recording.

Laptop/Device Policy

Usage not allowed without the express permission of the instructor.
