

University of California, Davis
Graduate School of Management
MGB492V: Intro to FinTech
Spring 2023

Instructor:	Gregory Perelman	Class Web site:	class posted on Canvas
Class Meetings:	Saturdays 1:30 pm – 5:00 pm (ONLINE via Zoom)		
Contact e-mail:	gperelman@ucdavis.edu (state “MGB492” on the subject line)		
Office hours:	Mondays 6:00-7:00 pm and by appointment		

Course Description:

This two-unit course provides an introduction to FinTech. It covers the evolution of “traditional” finance methods -- namely, the disruptions and innovations that have transformed: (i) how companies and consumers access funds (borrowing); (ii) how new technologies change real estate markets; (iii) how fintech companies changed the payment services; and (iv) how cryptocurrencies challenge traditional fiat money. The main objective is to provide a foundation in the basic concepts of these innovations and their applications. A regulatory framework around fintech companies will also be examined.

It is assumed that students have good working knowledge of the basic theoretical and practical concepts of economics, accounting, and corporate finance. The course is intended not only for those interested in careers within financial institutions, but also for those who wish to extend their institutional and industry specific knowledge.

Course Prerequisites: MGB205 or equivalent

Learning Objectives:

1. Describe what “FinTech” means with respect to its history and applications (e.g., what are necessary principles for creating successful FinTech businesses?);
2. Describe the basic features and technology underlying the transformations and disruptions to traditional finance;
3. Identify applications of emerging trends (e.g., identify a new set of frameworks and tools to evaluate why certain FinTech businesses succeed while others fail);
4. Examine the impact of product innovation and regulation in financial services industry;

Reading: there is no textbook for this course – required reading materials are available for purchase at the following link: TBD

Cases:

1. Lending Club: Time to Join? (HBS Case #9-214-046), November 14, 2014
2. Zillow Offers: Winning Online Real Estate 2.0 (HBS Case #9-220-021), Rev. April 2021
3. Visa: Adapting to the World of Fintechs (SMU908), September 2020
4. Ripple: The Business of Crypto (HBS Case #9-719-506), Rev. February 18, 2020

Notes:

1. What is Disruptive Innovation? By Clayton M. Christensen, Michael Raynor, and Rory McDonald. Harvard Business Review, December 2015. Need VPN to access through UC Davis library:
<https://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=111099338&site=ehost-live>

Links to other (free) required and suggested reading materials are provided in the class schedule at the end of the syllabus.

Course Format

Lectures, class discussions, problem solving and case studies.

Grading Policies:

Class participation: 20%
Group cases: 40%
Homework assignments: 40%

A	100 %	to 94.0%	C	< 77.0 %	to 74.0%
A-	< 94.0 %	to 90.0%	C-	< 74.0 %	to 70.0%
B+	< 90.0 %	to 87.0%	D+	< 70.0 %	to 67.0%
B	< 87.0 %	to 84.0%	D	< 67.0 %	to 64.0%
B-	< 84.0 %	to 80.0%	D-	< 64.0 %	to 61.0%
C+	< 80.0 %	to 77.0%	F	< 61.0 %	to 0.0%

Grading Scale

Class Participation

This course is structured as a SEMINAR, which means you must come prepared for class discussions and actively participate in class to receive credit. If you expect to miss a class for any reason, send me an e-mail beforehand. In class discussions, entire groups may be asked to take stands and express their views on the case questions. At other times, individual students will be asked to do the same. Students can expect a mix of all approaches. Questions and discussions are encouraged throughout the course.

Case Analysis (Groups)

In this class you will work with a team of 3-4 students on four case studies. For each case, every team must submit the following:

- Before class*: 3-4 page write-up in Word document (excluding exhibits) where you address case questions posted on the class website; Excel spreadsheet (for some of the cases – see class website for details);
- After class*: (in 1-2 days after case discussion) one-page summary of the in-class discussion (address any issues that you might have missed in the pre-class write-up);

A few more comments on the write ups: no detailed background of the case is needed – a few lines will be sufficient. At the same time, do not assume that the reader knows every number in the case. The write up is a stand-alone document and should state major problems or opportunities facing the decision-maker, list alternative courses of actions and come up with specific recommendations. It is important to make your decisions given the available information provided within the cases. You are welcome to use outside sources, but, as in real life, you will never have complete information and unlimited time to make your decisions. If you make any assumptions, clearly state them. The write-up should be professional and addressed to the CEO/CFO as an internal or consulting report. Write in complete and grammatically correct sentences. Avoid bulleted presentations in the write ups.

Homework assignments

We will have three homework assignments during the course, which must be submitted by due day/time. Assignments will be based on assigned reading, in-class discussions and some financial calculations presented in class – see Canvas Assignments for details. No makeup assignments will be given.

Note: if you need help with any technical matters, you should reach out to an SME (subject matter expert). **I am your SME in this class.** For example, if you do not know how to calculate an annual growth rate – check with me: short questions can be addressed via e-mail; for longer discussion attend office hours or schedule individual or group meetings. This note applies to all assignments, including homework and group cases.

Statement on Accommodation

UC Davis is committed to educational equity in the academic setting, and in serving a diverse student body. All students who are interested in learning about how disabilities are accommodated can visit the Student Disability Center (SDC). If you are a student who requires academic accommodations, please contact the SDC directly at sdcc@ucdavis.edu or 530-752-3184. If you receive an SDC Letter of Accommodation, submit it to your instructor for each course as soon as possible, at least within the first two weeks of a course.

Rights and Responsibilities

All participants in the course, instructor and students, are expected to follow the UC Davis [Principles of Community](#), which includes affirmation of the right of freedom of expression, and rejection of discrimination. The right to express points-of-view without fear of retaliation or censorship is a cornerstone of academic freedom. A diversity of opinions with respectful disagreement and informed debate enriches learning. However, in this course, any expression or disagreement should adhere to the obligations we have toward each other to build and maintain a climate of mutual respect and caring.

You are expected to take UC Davis's [Code of Academic Conduct](#) as seriously as we do. You were given this code of conduct with explicit explanations of violations (e.g. plagiarism, cheating, unauthorized collaboration, etc.) and your responsibilities in regard to them during orientation, and you signed a statement affirming that you understand it. Academic conduct violations will not be tolerated, and your instructor will not hesitate to turn violators over to Student Judicial Affairs. If you are uncertain about what constitutes an academic conduct violation, please refer to the code linked above, contact your instructor, or refer to the [Office of Student Judicial Affairs](#).

Safety and Emergency Preparedness

UC Davis has many resources to help in case of emergency or crisis. While reviewing campus [Emergency Information](#), you may want to register for UC Davis Warn Me and Aggie Alert, which will give you timely information and instructions about emergencies and situations on campus that affect your safety. If there is an emergency in the classroom or in non-Davis locations, follow the instructions of your instructor.

Student Wellness

You deserve respect, and are encouraged to [practice self-care](#) so that you can remain focused and engaged; that might mean getting a drink of water, leaving to use the restroom, taking a moment to stretch, or doing something else you need to do to take care of yourself. Please be respectful of others by minimizing distractions when practicing self-care – especially in lab, field or studio settings where safety is imperative.

College life can be overwhelming at times but know that you are not alone if you're feeling stressed. For many of us, systems of oppression such as racism, sexism, heterosexism or cissexism may cause additional stress. Please remember to practice self-care and reach out for support if and when you need it. You can visit [Virtual UC Davis](#) to find resources related to health and well-being, academics, basic needs (food and housing) and more.

Disclaimer

Unexpected events might require elements of this syllabus to change. Your instructor will keep you informed of any changes.

All material in the course that is not otherwise subject to copyright is the copyright of the course instructor and should be considered the instructor's intellectual property.

TENTATIVE COURSE SCHEDULE

Week	Topics, readings, and assignments
<p>1 May 6</p>	<p>Financial institutions and their functions:</p> <ul style="list-style-type: none"> ✓ Financial intermediaries: maturity, liquidity and risk transformation; information asymmetry (adverse selection and moral hazard); screening and monitoring; ✓ Pricing of traditional bank loan product ✓ Overview of fintech industry <p>Required reading:</p> <ul style="list-style-type: none"> • What is Disruptive Innovation? By Clayton M. Christensen, Michael Raynor, and Rory McDonald – from HBP. • Fintech: Overview of Innovative Financial Technology and Selected Policy Issues, Congressional Research Service, 2020 <ul style="list-style-type: none"> ○ Subsections titled “Possible Issues for Congress” are optional • Embracing the promise of fintech. Bank of England Quarterly Bulletin, 2019 Q1 <p>Recommended reading: Akerlof, George A., “<i>The Market for ‘Lemons’: Quality Uncertainty and the Market Mechanism.</i>” Quarterly Journal of Economics, August 1970, 488-500 (can be accessed through UC Davis library).</p>
<p>2</p>	<p>Innovations in Lending</p> <ul style="list-style-type: none"> ✓ Big data and new loan underwriting techniques ✓ Marketplaces and alternative lenders ✓ Economics of alternative lenders <p>Case 1: Lending Club: Time to Join?</p> <p>Assignment: submit a write up where you address questions posted on Canvas</p> <p>Recommended reading:</p> <ul style="list-style-type: none"> • Case 1: <ul style="list-style-type: none"> ✓ The Hourglass Effect, A decade of Displacement (article provided on Canvas) ✓ Fintech 100: Leading Global Fintech Innovators, KPMG and H2 Ventures, 2019 (you might be able to find a more recent edition) ✓ Global FinTech: 25 Key Global Themes and Trends to Watch, Credit Suisse, 2021
<p>3</p>	<p>Innovations in Real Estate Markets</p> <ul style="list-style-type: none"> ✓ Review of the real estate market ✓ Business of buying and selling homes - traditional approach vs. iBuyers <p>Case 2: Zillow Offers: Winning Online Real Estate 2.0</p> <p>Assignment: submit group case write up where you address all questions posted on Canvas</p> <p>Submit Homework assignment 1 (see Assignment section in Canvas)</p>

4	<p>Innovations in Payment Industry</p> <ul style="list-style-type: none"> ✓ Payment industry overview ✓ Fintechs in the payment segment <p>Case 3: Visa: Adapting to the World of Fintechs Assignment: submit group case write up where you address all questions posted on Canvas</p> <p>Required reading:</p> <ul style="list-style-type: none"> • Money in the modern economy: an introduction. By Michael McLeay, Amar Radian and Ryland Thomas. Bank of England Quarterly Bulletin, 2014 Q1 • Money creation in the modern economy. By Michael McLeay, Amar Radia and Ryland Thomas. Bank of England Quarterly Bulletin, 2014 Q1 <p>Recommended reading:</p> <ul style="list-style-type: none"> • Brief History of the Gold Standard in the United States, Craig K. Elwell, Congressional Research Service, 2011 <p>Submit Homework assignment 2 (see Assignment section in Canvas)</p>
5	<p>Cryptocurrencies</p> <ul style="list-style-type: none"> ✓ Payment vehicles or alternative assets? ✓ Key cryptocurrencies: bitcoin, Ethereum, XRP ✓ Central bank digital currencies <p>Case 4: Ripple: The Business of Crypto Assignment: submit a write up where you address questions posted on Canvas</p> <p>Required reading: The rise of digital money. Fintech Notes, International Monetary Fund, 2019</p> <p>Recommended reading:</p> <ul style="list-style-type: none"> • Seoyoung Kim and Atulya Sarin, Distributed Ledger and Blockchain Technology, 2018 • Seoyoung Kim, Atulya Sarin, Daljeet Viridi, Crypto-Assets Unencrypted, 2018 • Central Bank Digital Currency. Bank of England, March 2020. <p>Submit Homework assignment 3 (see Assignment section in Canvas)</p>