

FinTech 550 – Emerging Trends for FinTech Services

Fall Semester 2021

Instructor:	Craig Hurwitz
Phone:	(513) 543-6433
Days and Time:	Tuesdays and Thursdays 3:30 to 4:45
Location:	Teer 115
Office Hours:	On request
Prerequisite:	Fintech 520 – Financial Institutions

COURSE DESCRIPTION

FinTech is synonymous with global change through applications of technology such as artificial intelligence, machine learning, blockchain and cryptocurrencies. Beyond the hype, it is important to understand evolving customer needs, practical applications of these technologies, and the challenges associated with delivering next generation solutions. Companies have emerged globally that have changed access to services, business models, and customer expectations. This class will study the evolution of FinTech services and utilize assessment techniques, such as game theory, to model the motivation behind individual companies and offerings, technology as enabler, and the evolution of business models.

In our evaluation of emerging trends, we will consider the various technologies that have enabled many of the FinTech innovations, including hardware, software, data, and computational methodologies. The pace at which technology disrupts long standing business models will be reviewed in terms of both past, current, and possible future applications.

LEARNING OBJECTIVES

The student successfully completing this course should be able to:

- Summarize the history and evolution of innovation in the financial services marketplace and how that might shape business activities today
- Apply Game Theory and other economic models to understand the changing dynamics between businesses and their customers.
- Compare and contrast competitive strengths and weaknesses of market incumbents and new entrants and explain how incumbent competitors are responding to competitive threats
- Assess the key technologies disrupting the financial services sector, including hardware, software, data, and computational methodologies
- Evaluate how technology innovation is transforming access to services, business models, and the customer experience

GRADING EVALUATION

In order to pass this course, students will be expected to complete the activities listed below. Weights indicate the contribution to the final grade.

Attendance, Participation, Quizzes (15%)

This component of the course grade will be based on your attendance, class participation, homework, and quizzes. Any number of unannounced quizzes may be given during the semester at during class time. Quizzes may cover material from assigned readings, lectures from the current class period or previous class periods. Quizzes cannot be made up.

Exams (50%)

This component of the final grade is based on performance of 2 exams, a midterm and a final. The exams will consist of a variety of question types, including any combination of multiple choice and essays. The final exam will be cumulative and will cover all course content, including lectures, readings, class presentations and discussions. All exams are mandatory and will be closed book.

Business Analyses (10%)

This component of the final grade will be based on reading and critiquing 2 FinTech business scenarios. The readings will be assigned in class and will be due at the beginning of the following class. (Each case study will be worth 5% each).

In-class Presentation (25%)

Each student will be required to choose an emerging FinTech trend for research and presentation to the class. The grade will be based 1) an Executive Summary and presentation outline (worth 10%), and 2) the actual presentation (worth 15%). More specific details will be provided in class.

Other Items

Other factors, such as class and group participation, and punctual, regular attendance may be used, at the professor's discretion, to adjust final grades in borderline cases. The professor will assume that you are well prepared for class each week and will feel free to call upon you.

Make-up Exams:

It is completely the student's responsibility to take the exams when they are scheduled. As a rule, make-up exams will not be allowed; thus, a missed exam counts as a zero (0) toward the final course grade. Notwithstanding, at the professor's sole discretion make-ups will be permitted, but only the gravest of reasons will be accepted, *if* documented in writing by the proper authority. Even if there is an acceptable reason for missing the regularly scheduled exam, permission to take a make-up will be granted only if the student provides the professor with prompt and proper notification; that is, the student must inform the professor of the reason for missing the exam with proper documentation before the exam takes place, and the reason must be acceptable to the professor. If a make-up is permitted, both the format and questions can, and likely will, be different from the regularly scheduled exam.

Final Grades

Final letter grades are assigned based on the following scale (with slight modification as described below):

A-range	>97 A+	93–96 A	90–92 A-
B-range	87–90 B+	83–86 B	80–82 B-
C-range	77–80 C+	73–76 C	70–72 C-
F	<70 F		

Course Outline

Please note that session content may require change as we progress through the semester. It is always the student's responsibility to check Sakai for changes in schedules/topics, the latest reading, and assignments due for any class session.

Week 1

Tuesday 8/24	Ground rules, expectations, Financial Innovation Timeline and 4th Industrial Revolution	Buckley, et al - 150 Years of FinTech The Fourth Industrial Revolution: Shaping a New Era
Thursday 8/26	The FinTech Ecosystem	The Taxonomy of Fintech

Week 2

Tuesday 8/31	Innovation Trends	Gomper, et al - The Fintech Revolution FCAT - Designing Automated Systems that Humans Will Trust
Thursday 9/2	Game Theory	The Prisoner's Dilemma

Week 3

Tuesday 9/7	The Customer Experience	EY - Four Themes Driving FinTech Adoption by Consumers The Perfect Formula for FinTech Products: CX=ML+UX
Thursday 9/9	Banking-as-a-Service	BCG - The Sun is Setting on Traditional Banking Why Goldman Sachs Moved into BaaS Banking as a Service, Explained Oliver Wyman - The Rise of BaaS McKinsey - What the Embedded Finance and BaaS Trends Mean for Financial Services

Week 4

Tuesday 9/14	Decentralized Finance	Wharton - DeFi Beyond the Hype Aidos - The Management Guide to Decentralized Finance BCG - Sudden Rise of DeFi
Thursday 9/16	Trading and Exchanges	Crypto.com – Exchange Basics Coinbase - What is an Automated Market Maker? Decrypt - Uniswap: Beginner's Guide To the Leading DEX Binance - A Complete Guide to Cryptocurrency Trading for Beginners - (Optional article) – if there is sufficient demand, I'll arrange an optional session for those interested in learning more about this)

Week 5

Tuesday 9/21	Cryptocurrencies	Crypto.com - How does Bitcoin work? Crypto.com - How to Value Crypto Assets Crypto Token Types CFA Institute – Cryptoassets, Parts 1 and 2 pp,2-16 (located in Resources on Sakai)
Thursday 9/23	FinTech Funding and Investment Trends	CB Insights - State of Fintech 2Q21 KPMG - Pulse of Fintech 1H21

Week 6

Tuesday 9/28	Emerging Risks	Fraud Risk in a Digitized Fintech Ecosystem Potential Negative Effects of Fintech on the Financial Services Sector What Is the Dark Web and Why Should Fraud Analysts Be Paying Attention?
Thursday 9/30	Exam 1	

Week 7

Tuesday 10/5	No Class – Fall Break	
Thursday 10/7	Payment Technologies	Capgemini - Payments Top Trends 2021 BCG Global Payments 2020 Oliver Wyman - Payments Plus Q4 2020 Deloitte - B2B Payments for the Middle Market Mercator - Payments Infrastructure Outlook McKinsey - 2020 Global Payments Report pp. 33-37 The Difference Between B2B and B2C in Fintech PMNTS.com - BaaS - Powering the Next Generation of Fintech Innovation

Week 8

Tuesday 10/12	Payment Technologies	Developments in the BNPL Market BNPL - A Modern Take on Retail Financing By Now, Pay Later: What Businesses Need to Know
Thursday 10/14	Digital Banking	BCG - Global Retail Banking 2021 Deloitte Digital - Digital Banking Redefined in 2021

Week 9

Tuesday 10/19	Big Tech Fintech	Oliver Wyman.IBFED - Big Banks Bigger Techs pp. 14-24, 41-53
Thursday 10/21	Digital Wealth Management	Capgemini - Wealth Management Top Trends 2021 FCAT - The Future of Finance Might Be Autonomous

Week 10

Tuesday 10/26	Capital Markets, Trading	AIAR - Future of Fintech in Capital Markets EY - Capital Markets: Innovation and the FinTech Landscape
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Thursday 10/28	Insurance and Real Estate	McKinsey - Insurance 2030—The impact of AI on the future of insurance McKinsey – Insurtech – The Threat that Inspires Cushman & Wakefield - Blockchain, Bitcoin and Commercial Real Estate Cushman & Wakefield – Will Robots Take Over CRE
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Week 11

Tuesday 11/2	An Evolving Regulatory Regime	Oliver Wyman.IBFED - Big Banks Bigger Techs pp. 25-40, 56-66 The Regulatory Review - DeFi, Disintermediation, and the Regulatory Path Ahead The Regulatory Review - Financial Regulation for the Digital Age The Regulatory Review - DeFi is the Next Frontier for Fintech Regulation
Thursday 11/4	An Evolving Regulatory Regime	

Week 12

Tuesday 11/9	Quantum Computing	The Era of Quantum Computing Is Here. Outlook: Cloudy Quanta Magazine Future Use-Cases of Quantum Tech in FS McKinsey - How Quantum Computing Could Change FS Quantum perspectives of Robo-advisors
Thursday 11/11	Presentations	

Week 13

Tuesday 11/16	Presentations	
Thursday 11/18	Review	

Week 14

Tuesday 11/23		
University Schedule	Final Exam	

RESOURCE LINKS

"As a student you may experience a range of issues that could pose a challenge to learning. These might include anxiety, stress, feeling down, problems with attention/focus, or loss of motivation. Duke has many helpful resources that all students will need at some point.

Visit <https://studentaffairs.duke.edu/dukereach1/resources-assistance> for more information."

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Duke University is a community dedicated to scholarship, leadership, and service and to the principles of honesty, fairness, respect, and accountability. Citizens of this community commit to reflect upon and uphold these principles in all academic and non-academic endeavors, and to protect