

University of Missouri - St. Louis
Course Syllabus
FIN 3598 Sem in Finance: Introduction to FinTech
Spring 2019 (8W2: March 18 - May 18)
T R 6:00 - 8:30 p.m. Anheser-Busch Hall 001

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Office Hours: T R 5:00 - 6:00 pm

Course Description: Fintech (or financial technology) is one of the most fast-moving industries. The applications of fintech go over different areas in investments and financial institutions. The course introduces students to the major topics of Fintech, including Blockchain, Cryptocurrencies, FinTech Credit, Big Data, Machine Learning, Neural Network, Robo Advisers, and Algorithmic Trading

Prerequisites: A minimum campus GPA of 2.0 and Finance 3500

Class Attributes: Junior & Senior Level, College of Business

Credits: 3

Text: Lecture notes posted online

Programming Language: Python 3.7.0 or above (Free download): www.python.org/downloads
Knowing how to code can help, but previous knowledge in coding is not required.

Grade:

Exam I (April 11 Thu)	.25
Exam II (May 2 Thu)	.25
Exam III (May 16 Thu)	.30
Final Project (May 14 Tue)	.10
Class Participation and homework	.10
+Bonus Quizzes	

No make-up exams will be given and late assignments are not accepted. All exams are closed book. Students at the University of Missouri-St. Louis are expected to exhibit the highest standards of academic integrity. Any form of cheating and plagiarism in the exams, quizzes, and final project will earn you a failing grade for the entire course.

Class Schedule (Subject to Change):

Weeks 1 to 3

- Introduction to Blockchain, Digital Signature, and Cryptography
- Crypto-currencies
- Crowdfunding and P2P lending
- Exam I

Weeks 4 to 6

- Introduction to Machine Learning and Neural Net
- Robo Advisor
- Market Microstructure
- Algorithmic Trading and High-Frequency Trading
- Exam II

Weeks 7 to 8

- Overview of FinTech topics covered in the CFA (Chartered Financial Analyst) and FRM (Financial Risk Manager) exams
 - ◆ Fintech in Investment Management (CFA Level I): Big Data, Artificial Intelligence, and Machine Learning; Fintech Applications to Investment Management and Distributed Ledger Technology
 - ◆ Algorithmic Trading and High Frequency Trading (CFA Level II): Types of execution algorithms and high-frequency trading algorithms; market fragmentation and its effects on how trades are placed; the use of technology in risk management and regulatory oversight; issues and concerns related to the impact of algorithmic and high-frequency trading on securities markets
 - ◆ FinTech credit: Market structure, business models and financial stability implications.” BIS—Committee on Global Financial Systems, May 2017 (FRM Level I)
- More advanced topics (including some math and programming skills) will be covered on May 14, but are not required for the exam.
- Final Project and Exam III (cumulative)