



FIN 3576 Blockchain in Business

FIN 6576 Blockchain Applications in Finance

Spring 2022

Contact Information

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Welcome

Welcome to the online edition of the Finance 3576/6575.

I will be following your progress during the semester and will provide you with suggestions and support to help you in the process.

Course Description and Objective

The course is designed to provide students with an understanding of key concepts, developments, and major applications of the blockchain, a peer-to-peer exchange mechanism without an intermediary. It covers the technical foundations of the blockchain, why it is needed, and how it works. It also explores a series of applications including but not limited to those in business entities. Credit cannot be granted for both [FINANCE 3576](#) and [FINANCE 6576](#).

After finishing the course, you should be able to:

1. Identify problems with Web 2.0.
2. Recognize the need for Web 3.0.
3. Comprehend how blockchain technology works.
4. Recognize use cases for blockchain technology.
5. Comprehend blockchain as the infrastructure behind cryptocurrencies and smart contracts.
6. Recognize how Decentralized Autonomous Organizations (DAOs) work.
7. Identify mods of regulation for blockchain-based systems and code as law.
8. Ascertain how fintech instruments such as Apple pay, Venmo, and other similar products impact the financial market landscape.

The weekly readings, lectures posted in Panopto, practice questions at the end of each chapter, and graded homework assignments are carefully selected to help you learn the subject. Your knowledge of

the materials will be tested through weekly graded homework assignments and three exams. The goal is to prepare you for positions in the financial industry or other sectors requiring such knowledge.
Prerequisite: FIN 3500 / FIN6500 – 3 semester hours

Textbook

Drescher, Daniel, *Blockchain Basics*, Apress, 2017.

De Filippi, Primavera, and Aaron Wright, *Blockchain and the Law*, Harvard University Press, 2018.

Course Schedule

Week of Jan 17	Introduction to Blockchain, Video Lecture
	Blockchain Basics
Week of Jan 24	Stage I. Terminology and Technical Foundations: Steps 1 – 3
Week of Jan 31	Stage II. Why the Blockchain is Needed: Steps 4 – 7
Week of Feb 7	Stage III. How the Blockchain Works: Steps 8 – 11
Week of Feb 14	Steps 12 – 14
Feb 19, 10 am	Exam 1
Week of Feb 21	Steps 15 – 17
Week of Feb 28	Steps 18 – 19
Week of March 7	Steps 20 – 21
Week of March 14	Stage IV. Limitations and How to Overcome Them: Steps 22 – 23
Week of March 21	Stage V. Using the Blockchain: Steps 24 – 25
Week of March 28	Spring Break
Week of April 4	Use Cases
	Arshadi, Nasser, <i>Blockchain Platform for Real-Time Payments: A Less Costly and More Secure Alternative to ACH</i> , <i>Technology and Innovation</i> , 2019, Volume 21, Number 1, pp. 3 – 10.
	Arshadi, Nasser, <i>Application of Blockchain Protocol to Wealth Management</i> , <i>The Journal of Wealth Management</i> , spring 2019, Volume 21, Number 4, pp. 122 – 129.
	Arshadi, Nasser, <i>Real Estate Intermediation and Blockchain</i> , <i>Real Estate Review</i> , winter 2018, Volume 47, Number 3, pp. 47 – 58.
April 9, 10 am	Exam 2
Week of April 11	Blockchain and the Law
	Introduction
	Part 1
	1. Blockchain, Bitcoin, and Decentralized Computing Platforms
	2. Characteristics of Blockchains

Week of 18	Part 2 3. Digital Currencies and Decentralized Payment Systems 4. Smart Contracts as Legal Contracts 5. Smart Securities and Derivatives
Week of April 25	Parts 3, 4 6. Tamper-Resistant, Certified, and Authenticated Data 7. Resilient and Tamper-Resistant Information Systems 8. The Future of Organization 9. Decentralized Autonomous Organizations
Week of May 2	Parts 4, 5 10. Blockchain of Things 11. Modes of Regulation 12. Code as Law
May 7, 10 am	Exam 3

Instructions on How to Prepare For This Course

I suggest that you start the course by going over the syllabus and then reading weekly chapter assignments, followed by reviewing my video lectures posted in the Panopto folder of the canvas. After reviewing these materials, you will be ready to work on your homework assignments. These assignments constitute 1/4th of your course grade, and three exams cover the remainder. Your weekly homework assignments are posted every Monday morning and are due on Sunday at 11:59 pm. You will take your exams on the designated dates and times.

This course covers blockchain technology through assigned books and papers. The first book is more technical, and as such, I have posted video lectures and accompanying PowerPoint slides for chapters 1 – 20. Chapters 21 – 25 are review materials and descriptive discussions for which there are no lectures posted. For the use cases, I have posted lectures as well as the original papers. The second book is an easy read, so there are no lectures.

Time Requirements

I may guess five hours per week on average, but it can be more or less depending on your prior work or educational background.

Student Support Services

- **Technology Requirements**

As a student in an online course, you are expected to have reliable internet access almost every day. At a minimum, you will need the following software/hardware to participate in this course:

- The latest version of Java
- An up-to-date Adobe Reader or alternative PDF reader
- A current word processing software
- Browsers including Google Chrome or Firefox
- Computer with an updated operating system (e.g., Windows, Mac, Linux)

- Updated Internet browsers (Apple Safari, Internet Explorer, Google Chrome, Mozilla Firefox)
- Internet connection with a speed of no less than 6 Mbps
- Media player such as VLC Media Player

- **Honor Code, Academic Integrity, and Netiquette**

Academic integrity requires students and faculty to communicate with one another in a mutually respectful manner and to accept responsibility for one's actions. I expect class members to treat each other with respect and use professional language in exchanges. In your interactions with me, you can address me either as Professor or Dr. Arshadi. You can follow the university's policies related to academic honesty stated in [Honesty](#).

- **How to Use Canvas**

If this is the first time you use canvas, you first log in to [Canvas](#), sign in, go to the first column on the left, select help, click on the Search the Canvas Guide, and follow the instructions. If you have any issues with canvas, you can contact the Technology Support Center:

- [Help Desk](#)
- [Technology Support Center](#)
- 314-516-6034

- **Disability Access Services**

"The mission of Disability Access Services ("DAS") is to acknowledge the uniqueness of each student as a valuable member of the UMSL community. Recognizing UMSL's commitment to equal access of education, we strive to ensure full and equal participation in all education opportunities by

- Providing individualized appropriate accommodations and services
- Maintaining a high level of involvement with campus administrators, faculty, and staff
- Helping students with disabilities develop and maintain independence and self-advocacy skills for college and beyond"

For more information visit 131 Millennium Student Center.

Phone: 314.516.5671

[Disability Access Services](#)

- **Office of Multicultural Student Services (MSS) and the University Tutoring Center(UTC)**

MSS provides comprehensive student retention services to diverse student bodies, and through their tutoring center, the MSS offers tutoring support:

- 225 Millennium Student Center (MSC)
- [Office of Multicultural Student Services](#)
- [University Tutoring Center](#)
- 314-516-6807

- **Student Enrichment and Achievement (SEA)**

SEA provides support and intervention strategies to support your plans for graduation.

- 107 Lucas Hall
- [Student Enrichment and Achievement Email Address](#)
- [Student Enrichment and Achievement Weblink](#)

- **Office of International Students and Scholar Services (ISS)**

If you have difficulty communicating in English with the instructor of this course, contact ISS.

- 362 Social Sciences & Business Building (SSB)
- [Office of International Students and Scholar Services Email Address](#)
- [Office of International Students and Scholar Services Weblink](#)
- 314-516-5300

Chat Sessions

I have enabled the chat key on canvas. This will help us exchange ideas, especially when there is financial news to analyze or other topics. In addition, there will be opportunities for you to ask questions from me related to the course content.

Course Grade

Homework	25% - (grades posted weekly)
Exam I	25%
Exam II	25%
Exam III	25%