

Syllabus
University of Missouri – St. Louis
Blockchain
Finance 6588/Finance 3588
Fall 2019

Contact Information

Nasser Arshadi, PhD
Professor of Finance
Office: 233 AB Hall
Office Hours: By Appointment
Arshadi@umsl.edu
314-516-6272

Welcome

Welcome to the inaugural semester of the blockchain class. This course is cross-listed for both the graduate and undergraduate students. I look forward to working with you.

Course Description and Goals

Blockchain began as the infrastructure behind the bitcoin but rapidly became the technology used in other cryptocurrencies, as well as various enterprise applications. In its basic form, the blockchain is a distributed peer-to-peer software system that: 1) protects the integrity of transactions; 2) eliminates or significantly reduces the role of intermediaries; 3) reduces the cost of performing a task, and 4) performs tasks quickly. The term blockchain is interchangeably referred to as a data structure, an algorithm, a suite of technologies, and an umbrella term for a purely distributed peer-to-peer system.

Required Readings

Books

Drescher, Daniel, *Blockchain Basics*, Apress, 2017.
Tapscott, Don; Tapscott, Alex, *Blockchain Revolution*, Portfolio Penguin, 2016.

Papers

Libra White Paper: <https://libra.org/en-US/white-paper/#introduction>
Arshadi, Nasser, "Real Estate Intermediation and Blockchain," *Real Estate Review*, Winter, 2018.
Arshadi, Nasser, "Application of Blockchain Protocol to Wealth Management," *The Journal of Wealth Management*, Spring 2019.
Arshadi, Nasser, "Blockchain Platform for Real-Time Payments: A Less Costly and More Secure Alternative to ACH," *Technology and Innovation, Journal of the National Academy of Inventors*, Volume 21, September 2019.

Course Schedule

Blockchain Basics (Drescher)

Week of Aug 19	Terminology and Technical Foundations: Steps 1 – 3
Week of Aug 26	Why the Blockchain is Needed: Steps 4 – 7
Week of Sept 2	How the Blockchain Works: Steps 8 – 11
Week of Sept 9	Steps 12 – 14

Sept 14, 10 am Exam 1

Week of Sept 16	Steps 15 – 17
Week of Sept 23	Steps 18 – 19
Week of Sept 30	Steps 20 – 21
Week of Oct 7	Limitations and How to Overcome Them: Steps 22 – 23
Week of Oct 14	Using the Blockchain: Steps 24 – 25

Oct 19, 10 am Exam 2

Blockchain Revolution (Tapscott and Tapscott)

Week of Oct 21	Say You Want a Revolution: Chs 1 – 2
Week of Oct 28	Transformations: Chs 3 – 5
Week of Nov 4	Chs 6 – 7
Week of Nov 11	Chs 8 – 9
Week of Nov 18	Chs 10 – 11

Application Papers

Week of Nov 25	Libra White Paper
Week of Dec 2	Real Estate Intermediation and Blockchain Application of Blockchain Protocol to Wealth Management Blockchain Platform for Real-Time Payments

Dec 7, 10 am Exam 3

Instructions on How to Prepare for This Course

This course covers the blockchain technology through the assigned books and papers. The first book is more technical, and as such, I will post audio lectures and accompanying powerpoint slides for each week's assignment to facilitate understanding of the materials. The rest are easier to understand, and I am always available to help you if you have any questions.

Time Requirement:

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

Technology Requirements:

You should have access to the following:

1. Computer with an updated operating system (e.g., Windows, Mac, Linux)
2. Updated Internet browsers (Apple Safari, Internet Explorer, Google Chrome, Mozilla Firefox)
3. Ability to navigate the Canvas Learning Management System
5. Internet connection with a speed of no less than 6 Mbps.
6. Media player such as VLC Media Player.
7. Adobe Flash Player (free)
8. Adobe Reader or alternative PDF reader (free)

Academic Honesty

You are expected to follow the university's policies related to academic honesty stated in <https://www.umsl.edu/services/academic/policy/academic-dishonesty.html> .

Course Grade

Exam 1	33%
Exam 2	33%
Exam 3 (Not comprehensive)	34%