FI 8462 – Blockchain and Business Disruption
Course Syllabus – Fall 2020
(Draft – Subject to Change)

Instructor: Yang, B.

Class Schedule: Alternating Thursdays, 6:00p – 9:00p

Classroom: 413 Buckhead Center | At distance through Robinson Anywhere

Office Hours: By appointment

Course Description: Blockchain is a transformative technology in finance and other businesses, including banking, payments, financing, securities exchanges, real estate, insurance, supply chains, healthcare, media, and other industries. This graduate course provides an introduction to blockchain technology and its disruptive roles in business. Students will have hands-on and problem solving experiences that can be useful in blockchain applications and innovation. Topics may include but are not limited to: fundamentals of blockchain technology, applications and use cases of blockchain technologies in different industries, implications of blockchain on business practice and regulation, blockchain and cryptocurrencies, initial coin offerings, blockchain platforms (Ethereum, Hyperledger, Quorum, Corda, etc.), smart contracts, and web-based decentralized applications.

Course Objectives: After successfully completing this course, students will be able to:

• Understand recent developments in blockchain technologies and their impact on different industries
• Describe the technologies underlying cryptocurrencies and blockchains
• Learn to work with different blockchain platforms
• Design smart contracts and decentralized applications
• Engage in the process of blockchain innovation

Contributing Texts: (Note: We will depend heavily on class slides, notes, and reading materials, but the following textbooks are recommended.)


Class Schedule and Activities:

<table>
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<tr>
<th>CLASS</th>
<th>TOPIC AND COURSE CONTENT</th>
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| Class 1 | Introduction to Blockchain Technology  
Blockchain Disruption, Cryptographic Hash Functions, Digital Signature, Public and Private Keys, Blockchains, Consensus Mechanisms, Proof of Work, Proof of Stake |
| Class 2 | Blockchain Business Disruption  
Benefits and costs of blockchain solutions, disruptive innovation, Use cases in Retail, Government, Real Estate, Finance, and other industries, Implications of blockchain technology  
Student Presentations  
Guest Speech |
| Class 3 | Cryptocurrencies and ICOs  
Cryptocurrencies, ICOs vs Venture Capital, Ecosystem, Regulation, Scaling, Sidechains, Cross-chain transactions, Cryptoeconomics  
Student Presentations |
| Class 4 | Ethereum and Smart Contracts  
Ethereum platform and Smart Contracts, Decentralized Applications, DAOs, Other Blockchains for Smart Contracts, Basics of Solidity Language, Lab Time  
Student Presentations |
| Class 5 | Ethereum Programming  
More Solidity Language, Geth Client, Lab Time  
Student Presentations |
| Class 6 | Smart Contracts and Decentralized Applications  
Design of smart contracts and applications, Javascript, HTML, Lab Time  
Student Presentations |
| Class 7 | Decentralized Applications, Other Blockchain Platforms  
More Javascript tools, Corda, Hyperledger Fabric, Quorum, etc. Lab Time  
Student Presentations |
| Class 8 | Guest Speech  
Presentation of Final Projects |