

CIS629/FIN629: Blockchain Foundations and Applications

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Course Description

BitCoin/Blockchain is a disruptive technology across many industries, including banking, supply-chain, insurance, cloud, information-technology and beyond. This course teaches about the BitCoin/Blockchain technology from a practice perspective. The learning objective is for students to identify, design and develop business applications on BitCoin and Blockchain. Towards the goal, it will include lectures, case studies, labs and projects on BitCoin/Blockchain. The hands-on part of the course will be application design and development on real software (ethereum.org). It will cover Bitcoin and Blockchain in terms of their interfaces, applications and internal mechanisms.

This is a 3-credit course co-taught by Dr. Tang. The lectures will cover the Blockchain technology and applications interspersed.

Learning Objectives

Students will be able to 1) analyze existing applications on Blockchain, 2) design and development applications on Blockchain/cryptocurrency, and 3) identify new Blockchain applications in various functional areas of business. The learning goals will lead to potential startup opportunities on Blockchain.

Texts

- **Lecture slides** are required readings.
- Other reading materials (optional)
 - Mastering Ethereum: Smart contract and decentralized applications, Andreas M. Antonopoulos, Gavin Wood [[online book](#)]
 - Mastering Bitcoin: Programming the Open Blockchain, Andreas Antonopoulos, [[online book](#)]
 - Bitcoin and Cryptocurrency Technologies, Arvind Narayanan, Joseph Bonneau, Edward Felten, Andrew Miller, Steven Goldfeder, [[online book](#)]

Grading

Sector Quiz Labs Review/Project

CIS	25%	50%	25%
FIN	25%	35%	40%

Policies

- Late submission: 10% off within one day, 40% off within two days, 50% off within three days, 70% off within one week.
- All labs have to be finished individually; no collaboration will be allowed.
- No copy-and-paste is allowed in any circumstances.
- Any questions about grading should be directed to Dr. Tang. TA or graders do not interpret the grading policy.
- Notes from SU: <https://provost.syr.edu/important-syllabus-reminders/>