



# Course program and reading list

Semester 1 Year 2020

**School:** Efi Arazi School of Computer Science M.Sc.

Blockchain, Consensus, and Cryptography

**Lecturer:**

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**Teaching Assistant:**

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| <b>Course No.:</b> | <b>Course Type :</b> | <b>Weekly Hours :</b> | <b>Credit:</b> |
|--------------------|----------------------|-----------------------|----------------|
| 3615               | Elective             | 3                     | 3              |

| <b>Course Requirements :</b> | <b>Group Code :</b> | <b>Language:</b> |
|------------------------------|---------------------|------------------|
| Final Paper                  | 201361501           | English          |

**Prerequisites**

**Prerequisite:**

- 52 - Calculus I
- 53 - Calculus II
- 54 - Linear Algebra I
- 55 - Linear Algebra II
- 56 - Discrete Mathematics
- 59 - Data Structures
- 69 - Logic And Set Theory
- 417 - Introduction To Computer Science



Course Description

Blockchain and cryptocurrencies have disrupted our standard notions of money and consensus. This course will introduce the technical aspects of cryptocurrencies, blockchain technologies, and distributed consensus, touching on topics in cryptography, distributed computing, and game theory.

Open to MSc students and undergraduates with appropriate background.

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## Course Goals

The goal of this course is to provide students with an understanding of current blockchain technologies, and to introduce topics of related research.

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## Grading

The final course grade will be composed of:

- 25% - Class participation
  - 25% - Homework
  - 50% - Final Project
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## Reading List

This course will partly follow the textbook [Bitcoin and Cryptocurrency Technologies](#), by Narayanan et al.

A free pdf of the book will be made available with course materials.