Content

Course Code	Course Name	Semester	Theory	Practice	Lab	Credit	ECTS
EC 563	Blockchain and Virtual Currencies	1	3	0	0	3	6

Prerequisites	
Admission Requirements	

Language of Instruction	Turkish
Course Type	Elective
Course Level	Masters Degree
Objective	This course introduces students to blockchain and virtual currency technologies. Students will explore the fundamental principles, mechanisms of operation, and potential applications of these technologies.
Content	Course Content • How does Bitcoin work? • What makes it different? • How secure are Bitcoins? • How anonymous are Bitcoin users? • What applications can we build using Bitcoin as a platform? • Can cryptocurrencies be regulated? • If we designed a new cryptocurrency today, what would we change?
References	• https://bitcoinbook.cs.princeton.edu • Supplementary materials provided during the course

Theory Topics

Week	Weekly Contents
1	Introduction to cryptocurrencies
2	Decentralization
3	Mechanism of bitcoin
4	Storage and usage
5	Mining
6	Anonymity
7	Alternative mining puzzles
8	MT exam
9	Altcoins as Platforms
10	Altcoins
11	The future of bitcoin
12	DAOs
13	History of digital currencies
14	Applications