

Content

| Course Code | Course Name | Semester | Theory | Practice | Lab | Credit | ECTS |
|-------------|-----------------------------|----------|--------|----------|-----|--------|------|
| IT 520 | Cybernetics and Block Chain | 1 | 4 | 0 | 0 | 3 | 8 |

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| Prerequisites | |
| Admission Requirements | |

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| Language of Instruction | English |
| Course Type | Compulsory |
| Course Level | Masters Degree |
| Objective | Cybernetics and blockchain computing are the content of this course. |
| Content | Week 1 Introduction to the Cyber World Week 2 What is Cryptology? Week 3 Hash Functions Week 4 Cryptography with Open Keying I Week 5 Cryptography with Open Keying II Week 6 Midterm Exam Week 7 Distributed Application Architecture and P2P Networks Week 8 The Concept of Cryptocurrency Week 9 Data Storage and Distribution Week 10 Blockchain Development Platforms and APIs Week 11 Blockchain Ecosystem |
| References | 1. An Introduction to Mathematical Cryptography, Jeffrey Hoffstein, Jill Pipher, Joseph H. Silverman, Springer, 2014. 2. Bitcoin, E. Emre Aksoy, Abaküs, 2018. 3. Blokzincir - Kripto Paralar - Bitcoin, Satoshi Dünyayı Değiştiriyor, Vedat Güven , Erkin Şahinöz, KRONİK KİTAP, 2018. |

Theory Topics

| Week | Weekly Contents |
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