Course Name	Course Code	semester	T + P	Credit	ECTS
Cryptology			3+0	3	6

Prerequisite Courses	None

Language of Course	Turkish
Course class	Technical Elective
Coordinator of Course	Yrd.Doç.Dr. İbrahim Berkan AYDİLEK
Instructor	Yrd.Doç.Dr. İbrahim Berkan AYDİLEK
Course Assistant	
Objective of Course	This derste will introduce some encryption (crypto) systems. The primary objective of this course is to provide cryptology to students who are interested in cryptography.
Course Learning Output	Students who have successfully completed this course: • They can safeguard data by using their own developed methods or existing cryptology methods. • Understand the importance of information security.
Course Contents	Introduction and history of cryptology, known cryptology theorems, symmetric and asymmetric crypto systems, crypto analysis, alphabets and words.

Weeks	Topics
1	Introduction and history of cryptology
2	Basis of cryptology and divisibility
3	Integer representations and simple cryptography methods
4	Known cryptology theorems 1
5	Known cryptology theorems 2
6	Encryption schemes
7	Symmetric and asymmetric crypto systems
8	MIDTERM
9	Cryptographic analysis
10	Alphabets and words
11	Permutation
12	Multiple encryption, Random numbers
13	Matrices and linear maps, Prime number generation
14	decryption
15	FINAL EXAM

General Sufficiency

It is important that they can use the information they have obtained with algorithm and computer programming and abstract algebra with sufficient knowledge in general mathematics fields.
References
• Cryptography Theory and Practice, Douglas R. Stinson • A Course in Number Theory and Cryptography, Neal Koblitz
Assessment
Midterm exam: 40%, Final exam: 60%; Project or homework evaluations may be made at the beginning of the semester.