

Name of the course	Code	Term	T+P	Credit	ECTS
Compiler Design			3+0	3	4

Prerequisites and co-requisites	
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Language of the course	Turkish
Type of the course	Technical Elective
Course Coordinator	
Name of Lecturers	
Assistants	
Aim and goals of the course	This course aims to draw together the theory and practice of compiler construction. Much of the material will have a strong theoretical foundation. This material will serve as the basis for compiler-writing projects.
Course Learning Outcomes	Upon successful completion of the course, the students will be able to : <ol style="list-style-type: none"> 1. Apply simple intermediate code optimizations 2. List the main phases of the compiler construction 3. Identify semantic testing
Contents of the course	Compiler and translators / Structure of compiler / Programming languages / High level and low level language concepts / Syntactic features of programming languages / Content independent grammars / Parsing techniques and automatic methods for efficient parsers / Synthesizers / Symbol tables / Debugging and correction / Code optimization / Data flow analysis and Code Generation

Weeks	Subjects
1	Compilers and translators.
2	The structure of the compiler.
3	Programming languages.
4	High-level and low-level language concepts.
5	Syntactic properties of programming languages.
6	Content independent grammars.
7	Parsing techniques and automatic methods for etched parsers.
8	MIDTERM
9	Translators for synthetics.
10	Symbol tables.
11	Debug and fix.
12	Code optimization.
13	Data flow analysis
14	Code Generation
15	FINAL EXAM

General Qualifications
In evaluation, the compiler design and programming details are taken into consideration with the application usage.
References
<ol style="list-style-type: none"> 1. Andrew W. Appel, Modern Compiler Implementation in Java, Cambridge University Press,2002 2. A Retargetable C Compiler: Design and Implementation Fraser and Hansen, Benjamin-Cummings, 1995.
Evaluation
Midterm Exam: % 40, Final Exam: % 60. Project or homework evaluations can be made at the beginning of the semester.