

ÇANKAYA UNIVERSITY

Department of Industrial Engineering

Fall, 2025

IE 117 - Computational Programming Tools in IE

(3 0 3 credits – 5 ECTS)

Course Description:

This is a one-semester course that covers the basic concepts of computer programming in C# and MATLAB by relating with Industrial Engineering concepts. Developing algorithms using stepwise refinement method. Fundamental concepts that are related to structured programming. Data types and variable definitions. Basic control structures. Conditional and looping structures. Function concept. Arrays and list. File I/O structure.

	Instructor
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Office:	L – 323
Office hours:	TBA

Weekly Course Schedule:

Week	Topic(s)
1	Flowcharting basics, debugging and tracing.
2	Introduction to C# programming language
3	Arithmetic and Logical expressions/operators
4	Decision making: If conditional
5	Basics of loops
6	Examples for loops
7	One dimensional array
8	Multi-dimensional array
9	List<T>
10	Basics of methods
11	Advanced methods
12	FILE I/O
13	Advanced method examples
14	Exception Handling

Grading:

Homeworks/Quiz Exams:	30% (2 Activities)
Midterm:	30%
Final:	40%
Total:	100%

Textbooks

Author(s)	Title	Publisher	Publication Year	ISBN
Paul Deitel and Harvey Deitel	Visual C# How to Program, 6 th Edition	Pearson	2018	978-1-292-15346-9

Policy on Homework and Exams:

Cheating in homework, lab work, and exams has serious consequences. Therefore, all work submitted should reflect your honest effort.

- All the announcements will be posted on webonline.cankaya.edu.tr
- Not attending both the Final Exam and Midterm Exam without a valid excuse might lead to an “NA” grade.
- **NOTE THAT EVERYTHING ON THIS SYLLABUS IS SUBJECT TO CHANGE. STUDENTS WILL BE NOTIFIED ABOUT SIGNIFICANT CHANGES.**