

## Content

Course Code	Course Name	Semester	Theory	Practice	Lab	Credit	ECTS
INF112-B	Introduction to Programming	1	2	0	2	3	4

Prerequisites	
Admission Requirements	

Language of Instruction	French
Course Type	Compulsory
Course Level	Bachelor Degree
Objective	<p>This course aims to provide students with general programming and algorithmic thinking skills through the fundamental concepts of the C programming language. In this context, the main topics covered include an introduction to programming with C, structured program development, control structures, functions, input/output operations, arrays, file handling, and pointers.</p> <p>Students have the opportunity to apply the knowledge they acquire in the course through programming exercises conducted in the laboratory as well as through assignments.</p>
Content	<p>Week 1 – Basic concepts and introduction to C programming</p> <p>Week 2 – Variable types, initialization, and type conversions</p> <p>Week 3 – Loops and control structures</p> <p>Week 4 – Functions</p> <p>Week 5 – Scope of variables and function return types</p> <p>Week 6 – One-dimensional and multi-dimensional arrays</p> <p>Week 7 – Pointers</p> <p>Week 8 – Midterm exam</p> <p>Week 9 – Character arrays and string operations</p> <p>Week 10 – Structures</p> <p>Week 11 – Dynamic memory management</p> <p>Week 12 – Formatted file reading and writing</p> <p>Week 13 – Character-based file reading and writing</p> <p>Week 14 – Program execution, debugging, and command-line arguments</p>
References	<ol style="list-style-type: none"><li>Notes: <a href="http://kikencere.gsu.edu.tr/course/view.php?id=17">http://kikencere.gsu.edu.tr/course/view.php?id=17</a></li><li>H. M. Deitel &amp; P. J. Deitel, "C: How to Program"</li><li>Ben Klemens, "21st Century C", O'Reilly Media</li></ol>

## Theory Topics

Week	Weekly Contents
1	Basic concepts and introduction to C programming
2	Variable types, initialization, type conversions
3	Loops and control structures
4	Functions
5	Scope of variables, function return types
6	One-dimensional and multi-dimensional arrays
7	Pointers
8	Midterm exam

<b>Week</b>	<b>Weekly Contents</b>
9	Character arrays and string operations
10	Structures
11	Dynamic memory management
12	Formatted file reading and writing
13	Character-based file reading and writing
14	Program execution, debugging, and command-line arguments