

**ANKARA YILDIRIM BEYAZIT UNIVERSITY – DEPARTMENT OF MANAGEMENT INFORMATION SYSTEMS
COURSE SYLLABUS**

Course Code	Course Title	Course Type	ECTS Credits	Prerequisite Information	Date of Preparation
MIS105	INTRODUCTION TO ALGORITHMS AND PROGRAMMING	Compulsory	5	None	20.10.2025
Instructor of the Course & E-Mail Address	Doç.Dr. Hüseyin DEMİREL huseyindemirel@aybu.edu.tr				
Office Hours & Office Room	Office hours can be learned from the schedule posted on the instructor's office door.				
Course Content and Objectives	Understanding the principles and steps necessary to solve a problem, preparing the algorithms and flowcharts necessary for problem solving, understanding and using the structure of a programming language using a programming language.				
Textbook(s)	C How To Program, Deitel P, Deitel H, Pearson. Muhammet& Seher Yorulmaz (2020) Programlamayı C ile Öğreniyorum, Palme Yayıncılık. H.M.Deitel and P.J.Deitel (2017) C How to Program, Pearson. M. Sprankle (2015) Problem Solving and Programming Concept, Pearson Education				
Teaching Methods and Techniques	(The teaching methods and techniques used in the course, such as homework, class discussions, and reading materials, should be listed here.)				
Course Learning Outcomes	1	Can explain the basic concepts of algorithm design and programming			
	2	Can solve basic problems using the C programming language			
	3	Can write basic programs using the C language.			
	4	Can review a written program and find errors.			
	5				
	6				
	7				
Program Outcomes Contributed by the Course	Program Outcomes (PO)				
		Understands fundamental algorithmic concepts and applies them to solve basic computational problems.			
		Develops problem-solving and logical thinking skills using structured programming techniques.			
		Designs and implements simple programs in a high-level programming language (e.g., Python, C, or Java).			
		Demonstrates the ability to analyze algorithm efficiency and optimize code performance.			
		Gains awareness of algorithmic thinking as a foundation for advanced topics in data structures and software development.			
Contribution of the Course to Field Instruction	This course provides students with the essential foundations of computational thinking and algorithmic problem-solving, which are crucial for the MIS field. By learning how to design, analyze, and implement algorithms, students develop the ability to approach business and organizational problems systematically. The programming skills gained in this course enable students to understand the logic behind software applications and data processing systems, thereby strengthening their technical competence and preparing them for advanced courses in information systems development and data analytics.				

Topics Covered in the Course	1. Week	Structure of the Computer System and Basic Concepts
	2. Week	Algorithm Development
	3. Week	Flowchart Preparation
	4. Week	Variables and Data Types
	5. Week	Arithmetic and Logical Operators
	6. Week	Decision-Making Structures
	7. Week	Repetitive Structures – Loops
	8. Week	Midterm Week
	9. Week	Loops
	10. Week	Functions and Parameter Passing Methods
	11. Week	Functions and Parameter Passing Methods
	12. Week	Pointers
	13. Week	One-Dimensional Arrays
	14. Week	Two-Dimensional Arrays
	15. Week	Structures

Course Evaluation Criteria	In-Term Studies	Quantity	Percentage %
	Mid-terms	1	%50
	Quizzes		%
	Assignments		%
	Attendance		%
	Practice		%
	Project		%
	Final examination	1	%50
	Total		100%

Disability Policy

If you have a documented disability (e.g., visual, hearing, or physical impairment, etc.) that may influence your performance in this course, it is recommended to meet with the Engelsiz AYBU (https://aybu.edu.tr/engelsiz/content_list-327-yildirim-beyazit-universitesi-engelsiz-universite-birimi-yonergesi.html) to arrange for reasonable conditions (such as accommodation, etc.) to ensure an equitable opportunity to meet all the requirements of this course. You may also contact the local authority of the Faculty of Humanities and Social Sciences. You should communicate your needs to the course instructor as soon as possible to ensure that any course needs concerning exams, lecture materials, etc. are met.