TISHK INTERNATIONAL UNIVERSITY
FACULTY OF APPLIED SCIENCE
Department of INFORMATION TECHNOLOGY,
2025-2026 Fall
Course Information for IT 117 PROGRAMMING I

Course Name:	PROGRAMMING I

Code	Regular Semester	Theoretical	Practical	Credits	ECTS
IT 117	1	3	2	4	6

Name of Lecturer(s):	Islam Abdulaziz
Teaching Assistant:	Hemin Mikael and Mohammad Kamal
Course Language:	English
Course Type:	Main
Office Hours	Sunday (14:20-15:30) - Thursday (13:30 - 14:30)
Contact Email:	islam.abdulaziz@tiu.edu.iq Tel:07504649642
Teacher's academic profile:	MSc
Course Objectives:	This course aims to develop students' problem-solving skills using the C++ programming language. Students will learn and apply fundamental C++ concepts such as variables, data types, control structures, and loops. They will also learn to read, write, debug, and correct common errors in C++ programs.
Course Description (Course overview):	Students will learn by the course essential programming concepts, flow charts and C++ programming language syntax. Also, they will learn how to write simple programs by using control stuctures, operands and arrays.

COURSE CONTENT

Week	Hour	Date	Topic
1	3	06/12/2025-11/12/2025	Introduction to Programming Concept
2	3	13/12/2025-18/12/2025	Introduction to Python Programming, Python Syntax
3	3	22/12/2025-25/12/2025	Variables, Basic Data Types, Casting and Arithmetic
4	3	03/01/2026-08/01/2026	Flow Chart and Control Statements (IF-ELSE)
5	3	10/01/2026-15/01/2026	Nested IF Statements
6	3	17/01/2026-22/01/2026	Midterm Exam
7	3	24/01/2026-29/01/2026	Increment, Loops (For loop)
8	3	31/01/2026-05/02/2026	While Loop
9	3	07/02/2026-12/02/2026	Nested Loop Statements
10	3	14/02/2026-19/02/2026	Nested Loop Statements
11	3	21/02/2026-26/02/2026	Nested Loop Statements
12	3	28/02/2026-05/03/2026	Final Exam

13	3	Final Exam

COURSE/STUDENT LEARNING OUTCOMES

1	Compose simple C++ programs with correct syntax and structure using variables and constants.
2	Use C++ input and output operations to interact effectively with users.
3	Apply conditional statements to control program execution.
4	Implement iterative structures, including nested loops, to solve programming problems.
5	Analyze basic programming problems and develop logical C++ solutions using appropriate control structures.

COURSE'S CONTRIBUTION TO PROGRAM OUTCOMES

(Blank : no contribution, I: Introduction, P: Profecient, A: Advanced)

	Program Learning Outcomes	**Cont.**
1	Analyze a problem, and identify the computing requirements appropriate to its solution	I
2	Design, implement, and evaluate computer-based systems, process, component, or program to meet desired needs	I
3	Function effectively in teams to accomplish a common goal	I
4	Identify professional, ethical, legal, security, social, and economic issues and responsibilities	
5	Analyze the local and global impact of computing on individuals, organizations, and society	
6	Use current techniques, skills, and tools necessary for computing practice	P
7	Apply current technical concepts and practices in the core information technologies of human computer interaction, information management, programming, networking, web systems and technologies	I
8	Identify and analyze user needs and take them into account in the selection, creation, evaluation and administration of computer-based systems	I
9	Effectively integrate it-based solutions into the user environment	I
10	Apply problem solving skills, core it concepts, best practices and standards to information technologies	P
11	Identify and evaluate organizational requirements and current and emerging technologies	I
12	Design and integrate it-based solutions into the organizational environment	

Prerequisites (Course Reading List and References):	This course does not assume any prior programming experience. It is an introductory course designed for beginners.
Student's obligation (Special Requirements):	Students are expected to attend lectures regularly, actively participate in class discussions, and ask questions. They are required to complete programming lab exercises and practice coding regularly outside of class. Students should also prepare thoroughly for exams by reviewing class materials, completing assigned homework, and practicing programming problems to demonstrate their understanding of the course content.

Weekly Laboratory/Practice Plan:

Week	**Hour**	**Date**	**Topics**
1	2	01-05/12/2025	Introduction to the Course
2	2	08-12/12/2025	Introduction to C++
3	2	15-19/12/2025	Variables
4	2	22-26/12/2025	Expressions and Interactivity
5	2	29/12-02/01/2026	Selection Control Structures (if, if–else, if–else if, and nested if statements)
6	2	05-09/01/2026	Selection Control Structures (logical operators, flags, blocks and variable scope, and switch statement)
7	2	12-16/01/2026	Midterm Exam
8	2	19-23/01/2026	Iterative Control Structures (for loop)
9	2	26-30/01/2026	Iterative Control Structures (while & do-while Loops)
10	2	02-06/02/2026	Iterative Control Structures (nested for loop)
11	2	09-13/02/2026	Iterative Control Structures (nested while loop)

Course Book/Textbook:	Gaddis, T. (2014). Starting out with C++: Early objects (7th ed.). Pearson Education. Malik, D. S. (2015). C++ programming: From problem analysis to program design (7th ed.). Cengage Learning.
Other Course Materials/References:	http://www.cplusplus.com/doc/tutorial https://www.w3schools.com/cpp/default.asp https://www.tutorialspoint.com/cplusplus/index.htm
Teaching Methods (Forms of Teaching):	Lectures, Practical sessions, Exercises, Project, Demonstation, , ,

COURSE EVALUATION CRITERIA

Method	Quantity	Percentage (%)
Quiz	3	5
Project	1	10
Midterm Exam	1	25
Lab Exercises	10	1
Final Exam	1	40
Total		**100**

Examinations: True-False, Fill in the Blanks, Multiple Choices, Writing Code, ,

Extra Notes:

ECTS (ALLOCATED BASED ON STUDENT) WORKLOAD

Activities	Quantity	Workload Hours for 1 quantity*	Total Workload
Theoretical Hours	11	3	33
Practical Hours	11	2	11
Final Exam	1	25	25
Quiz	3	7	21
Project	1	15	15
Midterm Exam	1	15	15
Lab Exercises	10	2	20
Total Workload			**140**
ECTS Credit (Total workload/25)			**6**

Peer review

Signature:	Signature:	Signature:
Name:	Name:	Name:
Lecturer	Head of Department	Dean