



Jordan University of Science and Technology
Faculty of Computer & Information Technology
Computer Science Department

CS101 Introduction To Programming

First Semester 2021-2022

Course Catalog

3 Credit Hours. This course introduces the student to programming through a study of the concepts of program specification and design, algorithm development, and coding and testing using a modern software development environment. Students learn how to write programs in a high-level programming language. Topics covered include fundamentals of algorithms, flowcharts, problem solving, programming concepts, methods, control structures, arrays, and strings. Throughout the semester, problem solving skills will be stressed and applied to solving computing problems. Weekly laboratory experiments will provide hands-on experience in topics covered in this course.

Text Book

Title	netacad / Introduction to programming
Author(s)	cisco networking academy
Edition	1st Edition
Short Name	Textbook 1
Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
Textbook 2	C++ Programming: From Problem Analysis to Program Design	D. S. Malik	6th Edition	

Instructor

Name	Dr. Ahmad Alzubi
Office Location	A1 Level-3
Office Hours	Sun : 11:00 - 12:30 Mon : 10:00 - 11:30 Tue : 11:00 - 12:30 Wed : 10:00 - 11:30

Email	agalzubi@just.edu.jo
-------	----------------------

Instructor	
Name	Miss Ghadeer Obeidat
Office Location	A1-L3
Office Hours	
Email	gnobiedat@just.edu.jo

Class Schedule & Room
Section 18: Lecture Time: Sun, Tue : 11:30 - 13:00 Room: N4203 Section 19: Lecture Time: Mon, Wed : 11:30 - 13:00 Room: CS04-M1L-1

Tentative List of Topics Covered		
Weeks	Topic	References
Weeks 1, 2	Introduction to computer programming: C++ Basics, Variables, and Data Types	Ch. 1 From Textbook 1 , Ch. 2 From Textbook 2
Week 3	Input and Output: operators, expressions, and priorities	Ch. 1 From Textbook 1 , Ch. 3 From Textbook 2
Week 4	Relational operators and one-way decisions	Ch. 1 From Textbook 1 , Ch. 4 From Textbook 2
Week 5	Selection statements: IF, IF-Else and Switch	Ch. 2 From Textbook 1 , Ch. 4 From Textbook 2
Weeks 6, 7	Repetition (Loops): while, for, and nested loops	Ch. 2 From Textbook 1 , Ch. 5 From Textbook 2
Weeks 8, 9	Arrays: one-dimensional and two-dimensional	Ch. 2 From Textbook 1 , Ch. 8 From Textbook 2
Weeks 10, 11, 12	Functions: definition, passing parameters, and overloading	Ch. 3 From Textbook 1 , Ch. 6 From Textbook 2
Weeks 12, 13	Strings: data manipulation	Ch. 4 From Textbook 1 , Ch. 8 From Textbook 2
Week 14	Review	Ch. 1-4 From Textbook 1 , Ch. 2-8 From Textbook 2

Mapping of Course Outcomes to Program Student Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
The student will identify the hardware components of a computer and will describe how they act together to form a complete system including the scientific principles on which they are based. [1SO1, 1SO2]	10%	MidTerm Exam, Quizzes
The student will write a program using the C++ arithmetic operators, input/output methods and appropriate manipulators for formatting. [1SO1, 1SO2]	17%	MidTerm Exam, Quizzes, Final Exam
The student will write a program using appropriate selection statements such as if, if-else and switch. [1SO1, 1SO2]	16%	MidTerm Exam, Quizzes, Final Exam
The student will write a program using appropriate looping statements such as while, for and do-while. [1SO1, 1SO2]	20%	MidTerm Exam, Quizzes, Final Exam
The student will use both one dimensional and multi-dimensional arrays. [1SO1, 1SO2]	13%	Quizzes, Final Exam
The student will write a program using functions with parameters passed by value and by reference. [1SO1, 1SO2]	24%	Final Exam

Relationship to Program Student Outcomes (Out of 100%)					
SO1	SO2	SO3	SO4	SO5	SO6
50	50				

Evaluation	
Assessment Tool	Weight
MidTerm Exam	30%
Quizzes	20%
Final Exam	50%

Policy	
Attendance	Attendance is very important for the course. In accordance with university policy, students missing more than 20% of total classes are subject to failure. Penalties may be assessed without regard to the student's performance. Attendance will be recorded at the beginning or end of each class
Exams	All exams will be CLOSE-BOOK; necessary algorithms/equations/relations will be supplied if required.