Jordan University of Science and Technology

Faculty of Computer & Information Technology

Computer Science Department

HSS101CS Introduction To Programming - JNQF Level: 7
Second Semester 2023-2024

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.
Teaching Method: On Campus

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

Course References

Short name	Book name	Author(s)	Edition	Other Information
Ref #2	C++ Programming: From Problem Analysis to Program Design	D. S. Malik	8th Edition	

Instructor	
Name	**Mrs. Suzan Bdour**
Office Location	A2-L3
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Instructor	
Name	**Dr. Malak Abdullah**
Office Location	A1-L3
Office Hours	Sun : 12:30 - 13:30 Tue : 12:30 - 13:30 Wed : 11:30 - 14:30 Thu : 11:30 - 12:30
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Instructor	
Name	**Dr. Heba Alawneh**
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Instructor	
Name	**Mr. Abedl-Rahman Almodawar**
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Class Schedule & Room

Section 1:
Lecture Time: Sun, Tue : 11:30 - 12:30
Room: SG17

Section 2:
Lecture Time: Sun, Tue : 14:30 - 15:30
Room: A2125

Section 3:
Lecture Time: Sun, Tue : 10:30 - 11:30
Room: SG17

Section 4:
Lecture Time: Mon, Wed : 10:00 - 11:00
Room: G2121

Section 5:
Lecture Time: Mon, Wed : 08:30 - 09:30
Room: G2120

Section 6:
Lecture Time: Mon, Wed : 11:30 - 12:30
Room: M3302

Section 7:
Lecture Time: Sun, Tue : 10:30 - 11:30
Room: CS02-PH1L-1

Section 8:
Lecture Time: Sun, Tue : 11:30 - 12:30
Room: C2011

Prerequisites		
Line Number	**Course Name**	**Prerequisite Type**
1740990	CIs099 Computer Skills (Remedial Course)	Pre./Con.

Tentative List of Topics Covered		
Weeks	**Topic**	**References**
Weeks 1, 2	Introduction to computer programming: C++ basics, variables, and data types	**Ch 1** From **Ref #1**, **Ch 2** From **Ref #2**
Weeks 3, 4	Input and Output: operators, expressions, and priorities	**Ch 1** From **Ref #1**, **Ch 3** From **Ref #2**
Week 5	Relational operators and one-way decisions	**Ch 1** From **Ref #1**, **Ch 4** From **Ref #2**
Week 6	Selection statements	**Ch 2** From **Ref #1**, **Ch 4** From **Ref #2**

Weeks 7, 8	Repetition (Loops): while, for, and nested loops	**Ch 2** From **Ref #1**, **Ch 5** From **Ref #2**
Weeks 9, 10	Arrays	**Ch 2** From **Ref #1**, **Ch 8** From **Ref #2**
Weeks 11, 12	Pre-defined functions and user-defined functions (Value-returning)	**Ch 3** From **Ref #1**, **Ch 6** From **Ref #2**
Weeks 13, 14	Void functions and functions issues	**Ch 3** From **Ref #1**, **Ch 6** From **Ref #2**

Mapping of Course Outcomes to Program Outcomes and NQF Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Identifying 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] [1L7K1]	10%	
Understanding the C++ arithmetic operators, input/output methods and appropriate manipulators for formatting. [1SO1] [1L7K1]	17%	
Practicing the decision control using appropriate selection statements such as if, if-else and switch, as well as the repetition control with appropriate looping statements such as while, for and do-while. [1SO1] [1L7K1]	20%	
Using both one dimensional, multi-dimensional arrays, and strings as an array of characters. [1SO1] [1L7K1]	20%	
Defining and calling functions with parameters passed by value and by reference [1SO1] [1L7K1]	13%	
Designing, implementing, and running programs using the essential programming statements, selections, repetitions, arrays, strings, and functions. [1SO2] [1L7S1]	20%	

Relationship to Program Student Outcomes (Out of 100%)										
SO1	SO2	SO3	SO4	SO5	SO6	MSO1	MSO2	MSO3	MSO4	MSO5
80	20									

Relationship to NQF Outcomes (Out of 100%)	
L7K1	L7S1
80	20

Evaluation	
Assessment Tool	**Weight**
First Exam	15%
Second Exam	25%

LAB work	20%
Final Exam	40%

Policy	
Attendance	Attendance is very important for the course: LECTURE and LAB. 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.

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