Jordan University of Science and Technology
Faculty of Science & Arts
Basic Sciences And Humanities Department

HSS112SE Introduction To Object- Oriented Programming
First Semester 2023-2024

Course Catalog
3 Credit Hours. This course is an introductory course to the Object Oriented Design. Topics covered include the C++ programming concepts, structures, functions, objects and classes, constructors and destructors, operator overloading, virtual and inline functions, friend functions, this pointer, inheritance, pointers and references to objects, streams, command line arguments, binary and text files, random access files, templates and exception handling, the C++ preprocessor. A set of laboratory experiments will provide hands-on experience in related topics.

Text Book	
Title	C++ Programming: From Problem Analysis to Program Design
Author(s)	D. S. Malik
Edition	5th Edition
Short Name	Textbook
Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
netacad	Cisco netacad	Cisco Networking Academy	1st Edition	

Instructor	
Name	**Mr. Mohammed Hammouri**
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Office Hours	
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Instructor	
Name	**Dr. HAMZA ALKOFAHI**
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Class Schedule & Room
Section 1: Lecture Time: Sun, Tue, Thu : 08:30 - 09:30 Room: A2124 Section 2: Lecture Time: Sun, Tue, Thu : 09:30 - 10:30 Room: C2011 Section 3: Lecture Time: Sun, Tue, Thu : 13:30 - 14:30 Room: A2122 Section 4: Lecture Time: Mon, Wed : 08:30 - 10:00 Room: E2008

Prerequisites		
Line Number	Course Name	Prerequisite Type
1731012	CS101 Introduction To Programming	Prerequisite / Pass
821013	HSS101CS Introduction To Programming	Prerequisite / Pass

Tentative List of Topics Covered		
Weeks	Topic	References

Weeks 1, 2	Pointers	From **Textbook**, From **netacad**
Week 3	Classes and Abstract Data Type (ADT)	From **Textbook**, From **netacad**
Weeks 4, 5, 6, 7	Classes and objects	From **Textbook**, From **netacad**
Weeks 8, 9, 10, 11	Inheritance, virtual methods and Abstract classes	From **Textbook**, From **netacad**
Weeks 12, 13, 14	Operator Overloading and Templates, Exception handling	From **Textbook**, From **netacad**

Mapping of Course Outcomes to Program Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Identify the concepts of pointers, dynamic allocation of memory, and structures in general and within the context of OOP. [1C2]	20%	
Investigate and differentiate the basic concepts of OOP such as: class, object, encapsulation, information hiding, and abstract data types (ADT). [1C2]	25%	
Investigate and differentiate advanced concepts of OOP such as: composition, inheritance, and polymorphism. [1C2, 1C5]	25%	
Explain the concepts of friend functions, operator overloading, templates, and exception handling. [1C5, 1C6]	20%	
Implement, and evaluate programs that use the concepts covered in previous CLOs. [1C2, 1C5, 1C6]	10%	

Relationship to Program Student Outcomes (Out of 1(																								
SM1p	SM2p	SM3p	EA1p	EA2p	EA3p	EA4p	D1p	D2p	D3p	D4p	D5p	D6p	ET1p	ET2p	ET3p	ET4p	ET5p	ET6p	EP1p	EP2p	EP3p	EP4p	EP5p	EP6p

Evaluation	
Assessment Tool	**Weight**
First	15%
Second	15%
Labs	20%
Final	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.
Internal Lab	Students are responsible for registering in the course's internal lab, attending all sessions, and expected to do lab work and quizzes.

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