KINGDOM OF SAUDI ARABIA AL-IMAM MOHAMMAD BIN SAUD ISLAMIC UNIVERSITY FACULTY OF SCIENCES DEPARTMENT OF MATHEMATICS



المملكة العربية السعودية جامعة الإمام محمد بن سعودالإسلامية كلية العلوم قسم الرياضيات والإحصاء

Computer Programming (1)

Course Code	Course Num.	Course Name	Credit Hours	Lec	Lab	Tut	Prerequisites
CS	140	Computer Programming (1)	4	4	2	0	

Objectives:

- Introduce the student to the fundamentals of object-oriented programming, with emphasis on understanding functions, methods, variables, and control structures.
- Introduce the student to the basic concepts of classes and objects, and how to design object-oriented solutions for problems.
- Introduce the student to various tools used in programming, including editors, compilers, linkers, and loaders.

Syllabus:

- Fundamental concepts of object-oriented programming.
- Data types, control structures, functions, and arrays.
- Algorithms and problem-solving.
- An introduction to the concept of abstract data types and their implementation using classes.
- Analysis of problems using object-oriented concepts.
- Program correctness and verification.
- The mechanics of running, testing, and debugging.

References:

- C++ HOW TO PROGRAM, 5th edition, Deitel & Deitel, Prentice Hall.

