



Course Specification

(Bachelor)

Course Title: Introduction to Computer Programming

Course Code: CS1140

Program: Bachelor Science in Computer Science (BSCS)

Department: Computer Science

College: College of Computer and Information Sciences

Institution: Imam Mohammad Ibn Saud Islamic University

Version: 1.0

Last Revision Date: 27 April 2025 *Pick Revision Date.*

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A. General information about the course:

1. Course Identification

1. Credit hours: (4 Hours)

2. Course type

A. ☐ University ☐ College ☒ Department ☐ Track ☐ Others
B. ☒ Required ☐ Elective

3. Level/year at which this course is offered: (Level 2/Year 1)

4. Course General Description:

The course introduces students to structured programming techniques. Topics include different control statements (sequence, selection, and repetition), fundamental data types, and data structures (arrays). Upon successful completion of the course, students will solve computer problems by using structured programming techniques and adequate tools (text editor, compiler, and debugger).

5. Pre-requirements for this course (if any):

CS1111- Computing Fundamentals and Ethics

6. Co-requisites for this course (if any):

N/A

7. Course Main Objective(s):

The main purpose of this course is to provide the students the problem solving and programming skills to enable the students to design solutions to nontrivial problems and implement those solutions in Java.

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	90	100%
2	E-learning	-	-
3	Hybrid - Traditional classroom - E-learning	-	-



No	Mode of Instruction	Contact Hours	Percentage
4	Distance learning	-	-

3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	30
2.	Laboratory/Studio	30
3.	Field	0
4.	Tutorial	30
5.	Others (specify)	0
Total		90

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Describe the 'uses of' and the 'values that have' a primitive and a compound type.	K1, K2	In-class lectures, Class Exercises, Tutorials	Direct Assessment (Written exams: midterm, quizzes and final exam).
1.2	Recognize the behavior of programs during execution.	K1	In-class lectures, Class Exercises, Tutorials	Direct Assessment (Written exams: midterm, quizzes and final exam).
2.0	Skills			



Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
2.1	Develop, test, and debug a program that implements an algorithm that uses the appropriate fundamental programming constructs.	S1, S3	In-class lectures, Class Exercises, Tutorials	Direct Assessment (Written exams: midterm, quizzes and final exam).
2.2	Write programs that use the appropriate data types and structures such as primitive types, arrays, strings, and methods.	S2	In-class lectures, Class Exercises, Tutorials	Direct Assessment (Written exams: midterm, quizzes and final exam).

C. Course Content

No	List of Topics	Contact Hours
1.	Introduction to Java Programming	6
2.	Elementary Programming	12
3.	Selection	12
4.	Math Methods, Characters, and String	12
5.	Loops	18
6.	Methods	12
7.	Recursion	2
8.	Arrays	12
9.	Files	4
Total		90

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Lab Evaluations	Every week	10%
2.	Midterm exam	8	20%
3.	In Class Quizzes	As per specified	10%
4.	Lab Exams	5,9	20%





No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
5.	Final exam	Final exams weeks	40%

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.).

E. Learning Resources and Facilities

1. References and Learning Resources

Essential References	Introduction to Java Programming and Data Structures, Comprehensive Version, 13th edition, 2023, , 2023 by Daniel Liang
Supportive References	N/A
Electronic Materials	Lecture Slides and related study material shared on Blackboard
Other Learning Materials	N/A

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Lecture room with at least 35 seats
Technology equipment (projector, smart board, software)	- A projector connected to a PC preferably with Internet connection. - Sliding board
Other equipment (depending on the nature of the specialty)	N/A

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students and Program Leaders	- Students feedback (collected through course evaluation surveys). - Reviewing course reports by the program leaders.
Effectiveness of students assessment	Instructors and Program Leaders	Course report submitted by instructors.





Assessment Areas/Issues	Assessor	Assessment Methods
		• Reviewing course reports by the program leaders.
Quality of learning resources	Students, Instructors, and Program Leaders	• Students feedback (collected through course evaluation surveys). • Course report submitted by instructors. • Reviewing course reports by the program leaders.
The extent to which CLOs have been achieved	Instructors and Program Leaders	• Direct assessments for students' grades related to CLOs. • Reviewing course reports by the program leaders.
Effectiveness of the course improvement plans	Program Leaders	• Reviewing Course Specification and Reports by program leaders.
Other	Peer Reviewer	• (Direct) Upon student request, his/her work might be rechecked by another faculty member within the department

Assessors (Students, Faculty, Program Leaders, Peer Reviewers, Others (specify))

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	COMPUTER SCIENCE DEPARTMENT COUNCIL
REFERENCE NO.	1446/3101
DATE	29-4-2025

