



Course Specifications

Course Title:	Computation Skills 2
Course Code:	102CMS-2
Program:	Bachelors
Department:	All
College:	College of Sciences
Institution:	King Khalid University

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A. Course Identification

1. Credit hours: 2 (1+1)
2. Course type
a. University <input type="checkbox"/> College <input checked="" type="checkbox"/> Department <input type="checkbox"/> Others <input type="checkbox"/>
b. Required <input checked="" type="checkbox"/> Elective <input type="checkbox"/>
3. Level/year at which this course is offered: Level 4
4. Pre-requisites for this course (if any): 101 CSM-3
5. Co-requisites for this course (if any): n/a

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom		
2	Blended		
3	E-learning	45	100
4	Distance learning		
5	Other		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	15
2	Laboratory/Studio	30
3	Tutorial	
4	Others (specify)	
	Total	45

B. Course Objectives and Learning Outcomes

1. Course Description

Develop basic programming and computing skills to solve different mathematical, statistical, and general programming problems using programming tool visual C++.

2. Course Main Objective

This course will develop basic programming and computing skills to solve different mathematical, statistical, and general programming problems using programming tool visual C++. During this course, the student will develop any simple software project like student information system, calculator, Library Management System etc. using the high-level computer language C++. It will help the students to learn other computer languages such as JAVA, Java Script, PHP and other Scripting Languages also.

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	Knowledge and Understanding	
1.1	Design algorithms to solve simple problems and understand general problem-solving strategies.	
1.2	Understand how computer programming may be used to solve problems definition by example of C++ language.	
1.3	Understand various programming concepts such as control structures, methods, arrays, arguments, parameters etc.,	
2	Skills :	
2.1	Write simple programs in C++ language by using basic control structures (conditional statements, loops, switches, etc.).	
2.2	Develop computer programs on C++ to express and implement algorithms to solve problems.	
3	Values:	
3.1		
3.2		

C. Course Content

No	List of Topics	Contact Hours
1	Orientation, seminars, Training and face to face classes	3
2	Ch:1 Programming Language, algorithm and flowchart	3
3	Ch: 2 Introduction to C++ .	2
4	Ch:3 Selection Statements (if and switch)	2
5	Ch:4 Repetition Statements (for, while, do-While)	2
6	Ch:5 Arrays	3
Total		15

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding		
1.1	Design algorithms to solve simple problems and understand general problem-solving strategies.	Lecture through online(LMS. Demo, Lab Sesions.	Quiz, Assignments, Exams
1.2	Understand how computer programming may be used to solve problems definition by example of C++ language.		
1.3	Understand various programming concepts such as control structures, methods, arrays, arguments, parameters etc.,		
2.0	Skills		
2.1	Write simple programs in C++	Lecture through	Quiz, Assignments,

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
	language by using basic control structures (conditional statements, loops, switches, etc.).	online (LMS). Online Lab sessions.	Exams
2.2	Develop computer programs on C++ to express and implement algorithms to solve problems.		
3.0	Values		

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Activities and Quizzes	1-8	20%
2	Electronic Examination I	11	20%
3	Electronic Examination II	12	20%
4	Practical	During the Semester	10%
5	Final Electronic Examination	At the End of the Semester	30%

*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :

1. Instructors must attend their office hours and create Virtual classes using Blackboard.
2. Student can send email using Blackboard and the instructor must replay at most within 48 hours.

F. Learning Resources and Facilities

1.Learning Resources

Required Textbooks	Teach yourself C++ by Jesse Liberty
Essential References Materials	C++ How to Program Deitel & Deitel Programming with C++ by Aikman Series
Electronic Materials	KING KHALID UNIVERSITY is providing online electronic learning and assessment software for the students and faculties. Students are provided time to time the names of Websites, such as en.wikipedia.org, www.thefreedictionary.com, search engines, etc .for their respective subject material
Other Learning Materials	Online tutorial. The course will contain practical works for some programming tools using Visual C++. , online C++ compilers and CDs of the software are provided for students for their home PCs

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Visual C++. , online C++ compilers
Technology Resources (AV, data show, Smart Board, software, etc.)	Access to the internet.
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Effectiveness of teaching and assessment	Students and faculty	A periodical questionnaire is to be given to the students for giving their feedback about a faculty and subject. forms to be filled with suggestions and issues from instructors by the end of every semester
Improvement of Teaching	faculty	Preparation of course report. Revision of course specification, based on previous semester course report
Verifying Standards of Student Achievement	Faculty	All the course activities are monitor by course coordinator. Several meeting in a semester (or via active Group discussion) for all course teachers and lab teachers. Update on course specification

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	
Reference No.	
Date	