KINGDOM OF SAUDI ARABIA

THE NATIONAL COMMISSION FOR ACADEMIC ACCREDITATION & ASSESSMENT

COURSE SPECIFICATION

HASEB 121

Revised March 2007

Course Specification

Almajmaah University
College : Al Majmaah Community College Department : Computer Sciences

A. Course Identification and General Information

1. Course title and code: Computer programming(1) - HASEB 121
2. Credit hours: 4 Hours (Lecture: 2 Hours/week Lab: 4 Hours/week)
3. Program in which the course is offered: Computer science (Career Program)
4. Name of faculty member responsible for the course : Mr. Ahmad Almasri
5. Level at which this course is offered : second level
6. Pre-requisites for this course: Hasr 110- an introduction to computer and information technology
7. Co-requisites for this course (if any) : None
8. Location: Main campus Room No: (A2..1) Lab No: (A2..6),(A1..8)

B - Objectives

Upon successful completion of this course, students should be able to:

1. Knowing the programming concepts.
2. Knowing how to build a simple program by using control structures (if statements, looping structures).
3. Knowing how and when to use functions which are raising the efficiency of the program.
4. Building programs using arrays.
5. Building some complicated programs.

C. Course Description

Topics to be Covered		
Contents	**Nb of Weeks**	**Contact hours**
Introduction to programming languages	1	6
Algorithms & Flow chart	1	6
Flow chart & Pseudo code	2	12
Introduction to C++ & Variables & Constant	1	6
Input & Output in C++ & Arithmetic/Logic Instructions	1	6
IF statement	1	6
Switch statement	1	6
Looping - For & While & Do ..while	1	6
Functions	2	12
Arrays	2	12
Building applications	1	6

Revision	1	6

2. Course components (Total contact hours per semester)			
Lecture	**Tutorial**	**Labs**	**Other**
90 hrs	30 hrs	60 hrs	

3. Additional learning hours expected for students per week

The student must work at least for 6 hours per week which is equivalent to 90 hours per semester.

4. Development of learning outcomes in the domains or areas of learning

a. Knowledge

(i) Knowledge to be acquired :

- Understand programming concepts
- Understand how to build simple programs
- Understand how to design an algorithms
- Understand basics of C++ programming language.

(ii) Teaching strategies to be used to develop that knowledge :

- Class lectures, and lecture notes, are designed to achieve the course objectives.
- Student should read the assigned chapters before class
- Student is responsible for all material covered in the class.

(iii) Methods of assessment of knowledge acquired :

- Exams
- Labs evaluation.

b. Cognitive Skills

(i) Cognitive skills to be developed :

- Ability of analysis

- Ability of programming

- Ability of deduction and inference

(ii) Teaching strategies to be used to develop these cognitive skills :

- Exercises

- Labs.

(iii) Methods of assessment of students cognitive skills

- Exams

- Labs evaluation.

c. Information Technology and Numerical Skills

(i) IT skills to be developed :

- Using windows operating system efficiently

- Ability of programming in C++.

- Using office applications (word, Power Point ,...) to write reports, design presentations, ... etc.

(ii) Teaching strategies to be used to develop these IT skills :

- Assign to students a little programming project

- Assign to students to make research on a specific subject related to basic c++ concepts.

(iii) Methods of assessment of students cognitive skills

- Exams

- Labs evaluation

- Project evaluation and discussion of researches.

5. Schedule of Assessment Tasks for Students During the Semester			
Assessment	**Assessment task**	**Week due**	**Proportion of Final Assessment**
1	**Attendance, Participation and Labs evaluation**	**Each week**	**10**
2	**First month exam**	**6th week**	**25**
3	**Second month exam**	**10th week**	**25**
4	**Final exam**	**According to the exams schedule**	**40**

D. Student Support

1. Arrangements for availability of faculty for individual student consultations

- Office hours : 2 hours a week

E.

Day	8-9	9-10	10-11	11-12	1-2	2-3	3-4
Sunday							
Saturday							
Monday							
Tuesday		Office Hours					
Wednesday							

Learning Resources

1. Required Textbooks

1. Deitel & Deitel, C++: How to program, Prentice Hall, 2004 (or latest).

2. Recommended Book(s)

1. **M. A. Weiss, "Data structures And problem solving in C++", Addison Wesley, 2003**

3. Electronic Materials, Web Sites, etc.

www.cplusplus.com

http://msdn.microsoft.com

F. Facilities Required

A Lecture room appropriate for 30 students with a personal computer, a data show and a smart board.

A Computer Lab equipped with 30 PCs with a C++ compiler (latest version).

G. Course Evaluation and Improvement Processes

1. Strategies for Obtaining Student Feedback on Effectiveness of Teaching:

- Students have to evaluate the teacher rendering before obtaining results through the university web portal edugate.

2. Processes for Improvement of Teaching :

- Periodical review of contents in the department to increase the effectiveness of the subject.

- Comparison of the course content with similar courses offered in others colleges

- Updating of the learning resources according to later developments in the domain of programming concepts.

- Using modern technologies in teaching and providing additional support to students.