STRUCTURED PROGRAMMING 2 COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAM REVIEW

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the program specification.

1. Teaching Institution	Baghdad University/College of Science for Women
2. University Department/Centre	Computer Science Department
3. Course title/code	Structured Programming II 114 CSP2
4. Program (s) to which it contributes	Object Oriented Programming and Advanced programming.
5. Modes of Attendance offered	Actual attendance (including the loader student) and distance learning is possible in accordance with applicable

	laws.
6. Semester/Year	First Year/First Semester
7. Number of hours tuition (total)	90 Hours (30 hours Theoretical + 60 hours Practical)
8. Date of production/revision of this specification	17/4/2016
9. Aims of the Course	
This subject aims to learn the students the basic of programming using the C++ programming language in problem solving and system designing. The course should prepare the students to be professional programmers in designing and executing the programs for different purposes.	

10· Learning Outcomes, Teaching ,Learning and Assessment Method

K- Knowledge and Understanding

A1- use what has been learned previously from the principles of structured programming.

A2- use the C++ programming language in the understanding and analyzing of structured programming issues.

A3- use the work environment and tools of the C++ programming language and harnessed them to solve programming problems.

A4- develops the ability of students in using the shortest way to solve and manipulate the programming problems.

A5- work on developing the flexibility of the students in using the appropriate programming tools according to the programming logic.

A6- give something of the spirit of competition among students by encouraging them to solve sudden questions during the lesson.

A7- work to assess the viability of the students in understanding the material and realize its requirements by monthly, quarterly exams, as well as sudden exams that takes part of the time of the lecture.

B. Subject-specific skills

B1- the course provides special skills to deal with advanced programming structures and the processes that occur on them.

B2- the course allows for skills that clarify relations between the programming structures.

B3- skill of choosing the most efficient way to solve the programming problem and not to go to the lengthy solutions.

B4- develops skill diversification using programming tools for the language used in the course.

Teaching and Learning Methods

• Education: provide printed lectures and modern, and diverse sources that rich with examples.

• Education: Harnessing smart blackboard to the goal of teaching students and explain the steps of the solution and extraction results.

• Education: resolving some questions, with intent to contain errors and make students extracting error.

Learning: asking questions and inquiries and make the student to work as a teacher by explaining the solution on the blackboard.

• Learning: direct questions for all students and gradually to know the extent of their interaction and to draw the attention of the rest.

• Learning: Each specific group explains its report and the interaction among students by questions and answers and provides an environment that enables the student for lecture or debate management.

Assessment methods

• Quizzes (quiz) semi-weekly.

• Reporting, in the form of groups by a report for each group and dumping on students.

• put up sudden and overlapped questions with material explanation and an assessment on this activity.

• tests in the laboratory on the computer and written to enable the student to the solution without a computer.

• monthly and quarterly tests.

C. Thinking Skills

C1- puts set of solutions for the same problem and discussed them individually and determine the appropriate solution to the problem at hand with a stand on the disadvantages of the rest of the solutions.

C2- launch solutions contain inaccuracies and identifying these mistakes after discussion and processed them.

C 3-asked exceptional verbal questions that need for exceptional answers that have specific weight from evaluation and grading hand than be a strong incentive for student participation, competition and the race to be resolved.

Teaching and Learning Methods

Discussions that arise during the lecture and try to involve the largest possible number of students by touched on the details of things and discussed them objectively and targeted discussion.

Assessment methods

- Verbal assessment by involving students in discussions.
- Quizzes (quiz).
- Laboratory tests on the computer as well as written tests.
- Monthly and quarterly exams.

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1- distribution of specific topics for each group of students to prepare reports by search on sources in the web-network or library and formulated it in accordance with the basis of the approved formulation research.

D2-giving the leadership debate administration to the discussion group and enable them to lead and manage the dialogue.

D3-alert on errors in the students' oral answers and discussed them to see her fault.

D4- alert on errors in the written answers of students and marking them to clarify the errors to the student.

11. Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
١	4	**Array**	**Program on array**	According to point 10 in above	According to point 10 in above
٢	4	**Array**	**Program on array**	According to point 10 in above	According to point 10 in above
٣	4	**Array**	**Program on array**	According to point 10 in above	According to point 10 in above
٤	4	**Functions**	**Program on function**	According to point 10 in above	According to point 10 in above
٥	4	**Functions**	**Program on function**	According to point 10 in above	According to point 10 in above
٦	4	**Recursion function**	**Program on recursion function**	According to point 10 in above	According to point 10 in above
٧	4	**Friend and virtual function**	**Friend and virtual function**	According to point 10 in above	According to point 10 in above
٨	4	**Pointers**	**Program on pointers**	According to point 10 in above	According to point 10 in above
٩	4	**Dynamic Memory**	**Program on dynamic memory**	According to point 10 in above	According to point 10 in above
١٠	4	**Structures**	**Program on structure**	According to point 10 in above	According to point 10 in above

١١	4	**Complex structures**	**Program on Complex structures**	According to point 10 in above	According to point 10 in above
١٢	4	**Arrays of structures**	**Program on Arrays of structures**	According to point 10 in above	According to point 10 in above
١٣	4	**Unions**	**Program on Union**	According to point 10 in above	According to point 10 in above
١٤	4	**Files**	**Program on files**	According to point 10 in above	According to point 10 in above
١٥	4	**Files**	**Program on files**	According to point 10 in above	According to point 10 in above

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	➢ C++ for programmers/ John wily and Sonsltd ➢ Learning C++ language/ Internet
Special requirements (include for example workshops, periodicals, IT software, websites)	➢ Introduction to computer scince C++/ Keneth. ➢ Problem solving in C++/ Angela .B.S ➢ Problem solving with C++/ Walter Savith ➢ The design and evolution of C++/ Bjarne stroustrup

Community-based facilities (include for example, guest Lectures , internship , field studies)	problem solving in C++/ Angela .B.S

13. Admissions	
Pre-requisites	none
Minimum number of students	According to hall size and class size.
Maximum number of students	According to hall size and class size.