



Course Specifications

Institution:	Majmaah University
Academic Department :	Department of Computer Science and Information
Programme :	Computer Science and Information
Course :	Programming 2
Course Coordinator :	Dr. Wael Khedr
Programme Coordinator :	Dr. Yosry Azzam
Course Specification Approved Date :	22/ 12 / 1435 H



A. Course Identification and General Information

1 - Course title : Programming 2	Course Code: CSI 221	
2. Credit hours : 3 credit hours (2 lecture + 2 Laboratory)		
3 - Program(s) in which the course is offered: Computer Science and Information Program		
4 – Course Language : English		
5 - Name of faculty member responsible for the course: Dr. Wael Khedr		
6 - Level/year at which this course is offered : 4th level – 2014/2015		
7 - Pre-requisites for this course (if any) : <ul style="list-style-type: none"> • Programming 1 (CSI 211) 		
8 - Co-requisites for this course (if any) : <ul style="list-style-type: none"> • None 		
9 - Location if not on main campus : <p style="text-align: center;">College of Science at AzZulfi</p>		
10 - Mode of Instruction (mark all that apply)		
A - Traditional classroom	<input checked="" type="checkbox"/> What percentage? <table border="1" style="float: right; margin-left: 20px;"> <tr><td style="text-align: center;">80 %</td></tr> </table>	80 %
80 %		
B - Blended (traditional and online)	<input checked="" type="checkbox"/> What percentage? <table border="1" style="float: right; margin-left: 20px;"> <tr><td style="text-align: center;">10 %</td></tr> </table>	10 %
10 %		
D - e-learning	<input checked="" type="checkbox"/> What percentage? <table border="1" style="float: right; margin-left: 20px;"> <tr><td style="text-align: center;">10 %</td></tr> </table>	10 %
10 %		
E - Correspondence	<input type="checkbox"/> What percentage? <table border="1" style="float: right; margin-left: 20px;"> <tr><td style="text-align: center;">..... %</td></tr> </table> %
..... %		
F - Other	<input type="checkbox"/> What percentage? <table border="1" style="float: right; margin-left: 20px;"> <tr><td style="text-align: center;">..... %</td></tr> </table> %
..... %		
Comments :		

B Objectives

What is the main purpose for this course?

The main objectives of the course are:

1. Learn the pointer and relation with array, in C++. And how to use pointers vs array into programming.
2. Understand/Apply class data type with its constructor, destructor, and using objects of classes into the structure of programs.
3. Understand/Apply inheritance, and how to inherited classes.
4. Understand/Apply polymorphism on Object Oriented programming.

Briefly describe any plans for developing and improving the course that are





being implemented :

Using Dev C++ programming language or Visual C++ Package .

C. Course Description

1. Topics to be Covered

List of Topics	No. of Weeks	Contact Hours
1. A review of control structures and data types with emphasis on structured data types and array processing, review syntax of functions and primitive data types.	2	8
2. Introduction to input / output file streams.	1	4
3. Array of pointers	1	4
4. Introduce to the object-oriented programming paradigm, focusing on the definition and use of classes along with the fundamentals of object-oriented design	2	8
5. Class and method (constructor, overloading , method)	2	8
6. Pointers and Iterators	2	8
7. Class Inheritance	2	8
8. Polymorphism	1	4
9. Exception Handling	2	8

2. Course components (total contact hours and credits per semester):

	Lecture	Tutorial	Laboratory	Practical	Other:	Total
Contact Hours	30	30	-	-	-	60
Credit	30	15	-	-	-	45





3. Additional private study/learning hours expected for students per week.

5

The private self-study of my student is crucial for this course. It includes:

- reading carefully the topics in the textbook or reference book,
- browsing the websites that concerned with the course,
- solving the exercises that are assigned in each chapter,
- discussing the course topics with the instructor in his office hours,
- watching the video lectures of other instructors who presented related topics worldwide.

The total workload of the student in this course is then: $60 + 5 * 15 = 135$ work hours.

4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy

	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	Knowledge		
1.1	Students will have a skills for upgrade their simple programs in C++.	Lectures	Written Exam
1.2	Students will have an understanding of programming based on object , and complex programming.	Lab demonstrations	Homework assignments
1.3	Students will understand the concepts of and techniques used in C++ programming like classes, polymorphism.	Case studies Individual presentations	Lab assignments Class Activities Quizzes
2.0	Cognitive Skills		
2.1	Apply C++ program structure and the VC++ object.	Lectures	Written Exam
2.2	Students will be able to analyze programming problems .	Lab demonstrations	Homework assignments
2.3	Students will learn to think about life solutions by programming skills.	Case studies Individual presentations Brainstorming	Lab assignments Class Activities Quizzes
3.0	Interpersonal Skills & Responsibility		
3.1	Work in a group and learn time management	Small group discussion	Written Exam
3.2	Learn how to search for information through library and internet..	Whole group discussion	Homework assignments
3.3	Present a short report in a written form and orally using appropriate scientific language.	Brainstorming Presentation	Lab assignments Class Activities Quizzes
4.0	Communication, Information Technology, Numerical		
4.1	Communicate with teacher, ask questions, solve problems, and	Small group	Observations





	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
	use computers.	discussion	Homework assignments
4.2	Use Information technology and computer skills to gather information about a selected topic.	Whole group discussion	Lab assignments
4.3	Operate questions during the lecture, work in groups, and communicate with each other and with me electronically, and periodically visit the sites I recommended.	Brainstorming Presentation	Class Activities
5.0	Psychomotor		

5. Schedule of Assessment Tasks for Students During the Semester:

	Assessment task	Week Due	Proportion of Total Assessment
1	First written mid-term exam	6	15%
2	Second written mid-term exam	12	15%
3	Presentation, class activities, and group discussion	Every week	10%
4	Homework assignments	After each chapter	10%
5	Practical exam	15	10%
6	Final written exam	16	40%
7	Total		100%





D. Student Academic Counseling and Support

Office hours:
Office call:
Email:
Mobile:

E. Learning Resources

1. List Required Textbooks :

C++: How To Program, 10th edition, Deitel & Deitel, Prentice Hall , 2013.

2. List Essential References Materials :

C++ Programming: From Problem Analysis to Program Design, 6th , D. De Malik, course technology , 2012.

ISBN 978-1133626381

3. List Recommended Textbooks and Reference Material :

- None

4. List Electronic Materials :

Determines as the course is going on.

5. Other learning material :

- Video and presentation are available with me

F. Facilities Required

1. Accommodation

- Classrooms for lectures which are featured to traditional education, e-learning, and equipped with a computer, display device, data show screen, ordinary blackboard, smart board, integrated sound system, proper lighting system, and proper conditioning system.

2. Computing resources

- Smart Board

3. Other resources

- None

G Course Evaluation and Improvement Processes





1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching:

- Analysis of students' results.
- Observation during work.
- Students' evaluations.
- Colleagues' evaluations.
- Evaluation questionnaire filled by the students.
- Interview a sample of students enrolled in the course to take their opinions.

2 Other Strategies for Evaluation of Teaching by the Program/Department Instructor :

- Self-assessment.
- External evaluation.
- Periodic review of course (the Commission of study plans).

3 Processes for Improvement of Teaching :

- Taking into account the recommendations yielded from the internal review of the course.
- Guidelines about course teaching provided by the by study plans commission.
- Department Guidelines about faculty member performance on the basis of direct observation.
- Training and development.
- Workshops to improve the educational process.

4 Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement :

- Comparison of the course to its counterparts offered in similar departments.
- Periodic revision of course description by faculty member.
- Periodic revision of course description by the study plans and schedules Commission.
- Update learning resources related to the course to ensure that the course is kept up with developments in the field.
- Make use of statistical results of course evaluation made by students to improve and develop the course.
- Giving the opportunity for students to express their opinions about what is taught and receive suggestions and study their effectiveness.

Course Specification Approved
Department Official Meeting No (6) Date 22 / 12 / 1435 H

Course's Coordinator

Name : Dr. Wael Khedr
Signature :
Date : 22/12 /1435 H

Department Head

Name : Dr. Yousry Azzam
Signature :
Date : 22/12 /1435 H

