جامعة المجمعة
Majmaah University

Course Specifications

Institution:	College of Science at Az Zulfi
Academic Department :	Department of Computer Science and Information
Programme :	Computer Science and Information
Course :	Visual Programming
Course Coordinator :	Dr. Mohamed Wagieh Mostafa.
Programme Coordinator :	Assoc. Prof. Yosry Azzam
Course Specification Approved Date :	22/ 12 / 1435 H

A. Course Identification and General Information

1 - Course title : **Visual Programming** Course Code: CSI 311	
2. Credit hours : 4 credit hours (2 lecture + 2 Exercise) Credit Hours	
3 - Program(s) in which the course is offered: Computer Science & Information	
4 – Course Language : English	
5 - Name of faculty member responsible for the course: Dr. Mohamed Wagieh Mostafa.	
6 - Level/year at which this course is offered : 5th Level	

7 - Pre-requisites for this course (if any) :
  * Programming 2 (CSI 221)

8 - Co-requisites for this course (if any) :
  * N/A

9 - Location if not on main campus **:**
(College of Science at AzZulfi)

10 - Mode of Instruction (mark all that apply)

A - Traditional classroom	√	What percentage?	**80 %**
B - Blended (traditional and online)	√	What percentage?	**10 %**
D - e-learning	√	What percentage?	**10 %**
E - Correspondence		What percentage?	…. %
F - Other		What percentage?	… %

Comments :

B Objectives

What is the main purpose for this course?

Quick review of the Internet and Internet programming concepts, Web Servers and Web Application Servers, Design Methodologies with concentration on Object-Oriented concepts, Client-Side Programming, Server-Side Programming, Active Server Pages, Database Connectivity to web applications, Adding Dynamic content to web applications, Programming Common Gateway Interfaces, Programming the User Interface for the web applications.

The main objectives are summarized as shown below:

1. Giving the students the insights of the Internet programming and how to design and implement complete applications over the web.

2. It covers the notions of Web servers and Web Application Servers, Design Methodologies with concentration on Object-Oriented concepts, Client-Side Programming, Server-Side Programming, Active Server Pages, Database Connectivity to web applications, Adding Dynamic content to web applications, Programming Common Gateway Interfaces, Programming the User Interface for the web applications.

3. It also concentrates on the usage of recent platforms used in developing web applications such as the .Net environment like C#, XML, and ASP.Net.

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

1. Using group discussion through the internet with course attending students.
2. Updating the materials of the course to cover the new topics of the field.
3. Increasing the ability of the students to implement the algorithms using visual C# that are presented in the course.

C. Course Description

1. Topics to be Covered

List of Topics	No. of Weeks	Contact Hours
1. Access and SQL – part I • Understanding Key Database Concepts • Creating an Access Database • Using Access and SQL to Create Database Tables • Manipulating Data Using SQL • Retrieving Data Using SQL • Retrieving All Data	1	4
2. Access and SQL – part II • Retrieving Specific Data Using the WHERE Clause Sorting Data	1	4

• Grouping Data • Retrieving Data Using Advanced Techniques • Retrieving Data from More Than One Table • Subqueries • Correlated Subqueries • Using EXISTS		
3. Object-Oriented Concepts and the Basics of C# - part I • Writing a C# Program that Produces Output • Compiling and Executing a Program from the Command Line • Adding Comments to a Program • Compiling and Executing a Program Using the Visual Studio IDE • Using the System Namespace • Declaring Variables • Using the Standard Binary Arithmetic Operators	1	4
4. Object-Oriented Concepts and the Basics of C# - part II • Using Floating-Point Data Types • Using the string Data Type to Accept Console Input • Making Decisions • Writing Methods • Creating a MessageBox • Adding Functionality to MessageBox Buttons	1	4
5. Methods in C# • Writing methods with No Arguments and No Return Value • Implementation Hiding and How to use Multiple Files • Writing methods That Require a Single Argument • Writing methods That Require a Multiple Arguments • Writing methods That Return Values • Using ref and out Parameters Within Methods • Overloading Methods • Avoiding Ambiguous Methods	2	8
6. Classes in C# • Understanding Class Concepts • Creating a Class from Which Objects Can Be Instantiated • Creating instance variables and methods • Declaring Objects • Compiling and Running a Program That Instantiates Class Objects • Organizing Your Classes • Using Public Fields and Private Methods • Understanding the this reference • Understanding Constructor Methods • Passing Parameters to Constructors • Overloading Constructors • Understanding Destructor Methods	2	8
7. Selection and Repetition • Making Decisions Using the if Statement • Making Decisions Using the if-else Statement	1	4

• Using Compound Expression in if Statement • Making Decisions Using the switch Statement • Using the Conditional Operator • Using the NOT operator • Using the while Loop • Using the for Loop • Using the do Loop • Using Nested Loop		
8. Windows programming in C# - part I • Creating a Form • Creating a Form That Is the Main Window of a Program • Placing a Button on a Window • Using the Visual Studio IDE to Design a Form • Understanding the Code Created by the IDE • Adding Functionality to a Button on a Form • Adding a Second Button to a Form	1	4
9. Windows programming in C# - part II • Using the Visual Studio Help Search Function • Understanding Controls • Creating a Form With Labels • Setting a Label's Font • Adding Color to a Form • Using CheckBox and RadioButton Objects • Adding a PictureBox to a Form	1	4
10. ASP.Net - Part I • Building Web Forms Using ASP.NET • Writing Your First ASP.NET Page • Processing Client Requests • Exploring ASP.NET Server Controls • Handling Control Events • Using ASP.NET Server Controls to Create Web Forms • Building Forms with HTML Server Controls • Building Forms Using ASP.NET Web Controls • Using DropDownList and ListBox Controls • Using RadioButtonList and CheckBoxList Controls • Using DataList and DataGrid Controls	2	8
11. ASP.Net Part II • Working With User Controls • Exposing User Control Properties and Methods • Using ASP.NET Server Controls in User Controls • Using Validation Controls to Improve Web Forms • Uploading Files to a Web Server	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.

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The private self-study of my student is crucial for this course. It includes:
- **reading carefully the topics in the textbook or reference book,**
- **implementing algorithms using visual C# ,**
- **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 x 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	Using C# data types, class libraries and control constructs.	Lectures Lab demonstrations Case studies Individual presentations	Written Exam Homework assignments Lab assignments Class Activities Quizzes
2.0	**Cognitive Skills**		
2.1	Implement C# classes, objects, and class relationships.	Lectures Lab demonstrations Case studies Individual presentations Brainstorming	Written Exam Homework assignments Class Activities Quizzes
2.2	Develop and write programs applying Object Oriented principles using C#.		
2.3	Create member functions using C# syntax and exception handling.		
2.4	Building C# classes and inheritance hierarchies		
3.0	**Interpersonal Skills & Responsibility**		
3.1	Writing GUI applications using the drag-and-drop facilities.	Small group discussion Whole group discussion Brainstorming Presentation	Written Exam Homework assignments Class Activities Quizzes
4.0	**Communication, Information Technology, Numerical**		
4.1	Writing and deploying components in an ASP.NET Web application.	Small group discussion Whole group discussion Brainstorming Presentation	Written Exam Homework assignments Class Activities Quizzes
5.0	**Psychomotor**		
5.1	....	....	....
5.2	....	....	....
5.3	....	....	....

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 every chapter	10%
5	Research about presented topics	Every two weeks	10%
6	Final written exam	16	40%
	Total		100%

D. Student Academic Counseling and Support

1. Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice. (include amount of time teaching staff are expected to be available each week)

Office hours: Sun: 10-12, Mon. 10-12, Tues. 10-12

Office call: Sun. 12-1 and Thurs 12-1

Email: m.wagieh@mu.edu.sa

1. Mobile: 0546942685

E. Learning Resources

1. List Required Textbooks :

- O'Brien and MaraKas, GeorgeMarakas ; Introduction to Information Systems (16th Ed.) McGraw Hill, Business and Economics, 2012.

2. List Essential References Materials :

- V. Rajaman; Analysis and Design of Information Systems; 2nd Edition; PHI Learning Pvt Ltd; Aug. 2004.
- Ralph Stair and George Reynolds, "Fundamentals of Information Systems", Course Technology, 3rd Edition2005.

3. List Recommended Textbooks and Reference Material :

- ACM TRANSACTIONS ON INFORMATION SYSTEMS JOURNAL.
- ENTERPRISE INFORMATION SYSTEMS JOURNAL.
- EUROPEAN JOURNAL OF INFORMATION SYSTEMS JOURNAL.

4. List Electronic Materials :

- http://nptel.ac.in/courses.php?branch=Comp
- https://www.coursera.org/

5. Other learning material :

- Video and presentations that available with the instructor

F. Facilities Required

1. Accommodation
- Classrooms and,
- Library, as those that are available at the college of science at AzZulfi

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: • Questionnaires (course evaluation) achieved by the students and it is electronically organized by the university. • Student-faculty management meetings
2 Other Strategies for Evaluation of Teaching by the Program/Department Instructor : • Discussion within the staff members teaching the course. • Departmental internal review of the course.
3 Processes for Improvement of Teaching : • Periodical departmental revision of methods of teaching. • Monitoring of teaching activates by senior faculty members. • Training course.
4. Processes for Verifying Standards of Student Achievement • Instructors of the course are checking together and put a unique process of the evaluation.
5 Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement : • Course evaluation • Exam evaluation • Improvement plan

Course Specification Approved

Department Official Meeting No (6) Date 22 / 12 / 1435 *H*

Course's Coordinator	**Department Head**
Name : Dr. Mohamed Wagieh.	*Name :* Assoc. Prof. Yosry Azzam
Signature :	*Signature :* ....
Date : 22/ 12 / 1435 *H*	*Date :* 22/ 12 / 1435 *H*