هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

اعتماد NCAAA T4 2020

Course Specifications

Course Title:	**Visual Programming**
Course Code:	**IT223**
Program:	Computer Science/ Information Technology
Department:	Information Technology
College:	College of Computer and Information Sciences
Institution:	Majmaah University

Table of Contents

A. Course Identification

1. Credit hours:	3 (3,0,1)
2. Course type	
a.	University ☐ College ☒ Department ☐ Others ☐
b.	Required ☒ Elective ☐
3. Level/year at which this course is offered:	**Level 5**
4. Pre-requisites for this course (if any)**:**	CS120- Programming II
5. Co-requisites for this course (if any)**:**	

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	**Traditional classroom**	44	100%
2	**Blended**		
3	**E-learning**		
4	**Distance learning**		
5	**Other**		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	**Lecture**	22
2	**Laboratory/Studio**	22
3	**Tutorial**	
4	**Others** (specify)	
	Total	44

B. Course Objectives and Learning Outcomes

1. Course Description

This course gives students the basis for developing visual applications. Using a selected visual programming language, Introduces computer programming using the Visual BASIC programming language with object-oriented programming principles, Emphasis is on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger, OO design and programming techniques, exception handling, modular programming, Visual BASIC Controls and Events, GUI design rules, event handling, multithreading, swing components and model, networking (Client Server Model), and access to databases

2. Course Main Objective

1. Use the different elements of a visual programming language as building blocks to develop correct, coherent programs.
2. Analyze problems, develop conceptual designs that solve those problems, and transform those designs to Visual Programs with VB.Net.
3. Program using the fundamental software development process, including design, coding, documentation, testing, and debugging.

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	**Knowledge and Understanding**	
1.1	CLO1: Use the different elements of a visual programming language as building blocks to develop correct, coherent programs.	K1
1.2		
1.3		
1...		
2	**Skills :**	
2.1	CLO2: Analyze problems, develop conceptual designs that solve those problems, and transform those designs to Visual Programs with VB.Net.	S4 [IT]
2.2	CLO3: Program using the fundamental software development process, including design, coding, documentation, testing, and debugging.	S2
2.3		
2...		
3	**Values:**	
3.1		
3.2		
3.3		
3...		

C. Course Content

No	List of Topics	Contact Hours
1	Program design and implementation - Develop visual applications (VB)	3
2	Essential VB, variables, data types, commenting	2
3	Arithmetic operators and expressions	3
4	Decision Structures (ifs and select case)	6
5	Loops (while, for) & Eexception handling	5
6	Loop applications (summation, counting)	2
7	Functions (val and ref parmaters) & Swing components and model,	6
8	Strings & Arrays	6
9	Windows applications using forms, controls, and events.	5
10	Files, Multithreading, Networking & Databases	4
Total		44

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	CLO1: Use the different elements of a visual programming language as building blocks to develop correct, coherent programs.	Classroom Teaching	Mid Exam, Final Exam
1.2			
…			
2.0	**Skills**		
2.1	CLO2: Analyze problems, develop conceptual designs that solve those problems, and transform those designs to Visual Programs with VB.Net.	Classroom Teaching and Lab Exercises	Lab Based Assignments, Mid Exam, Final Exam
2.2	CLO3: Program using the fundamental software development process, including design, coding, documentation, testing, and debugging.	Classroom Teaching and Lab Exercises	Lab Based Assignments
…			
3.0	**Values**		
3.1			
3.2			
…			

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Quiz 1	Week 2	5%
2	Assignment 1	Week 3	5%
3	Lab Exercise	Week 5	5%
4	Lab Exercise	Week 6	5%
5	Midterm Exam	Week 7	20%
6	Assignment 2	Week 7	5%
7	Quiz 2	Week 8	5%
8	Lab Exercise	Week 9	5%
9	Assignment 3	Week 10	5%
10	Final Exam	Week 12	40%

***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 :

Students can meet the faculty during advising hours or whenever the faculty is in the office.

Office Hours: 4 Hours/Week

Students also can email the faculty anytime during the weekdays

F. Learning Resources and Facilities

1.Learning Resources

Required Textbooks	Zak, Diane, Programming with Microsoft Visual Basic 2015. Seventh Edition, Course Technology, Cengage Learning, 2016. ISBN:978-1-285-86026-8.
Essential References Materials	
Electronic Materials	
Other Learning Materials	

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Classroom and laboratory
Technology Resources (AV, data show, Smart Board, software, etc.)	Data show and Smart Board
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	Visual Basic .NET

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Final Exam Evaluation	Peers	Verification of Marks
Course Report Verification	Quality Coordinator	Check List

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	