Kurdistan Region Government
Ministry of Higher Education
and Scientific Research
Erbil Polytechnic University

زانكۆی پۆلیته‌كنیكی هه‌ولێر
ERBIL POLYTECHNIC UNIVERSITY

Module (Course Syllabus) Catalogue

2023-2024

College/ Institute	Khabat Technical Institute
Department	Department of Information Technology
Module Name	Visual Programming
Module Code	VIP403
Degree	Technical Diploma ✓ Bachelor ☐ High Diploma ☐ Master ☐ PhD ☐
Semester	4th
Qualification	Master's Degree in Software Engineering
Scientific Title	Assistant Lecturer
ECTS (Credits)	6
Module type	Prerequisite ☐ Core ✓ Assis ☐
Weekly hours	4
Weekly hours (Theory)	(2) hr Class	(55) Total hrs Workload
Weekly hours (Practical)	(2) hr Class	(95) Total hrs Workload
Number of Weeks	12
Lecturer (Theory)	Ahmed HURMZI
E-Mail	ahmad.khdr@epu.edu.iq
Lecturer (Practical)	
E-Mail	
Websites	https://academicstaff.epu.edu.iq/faculty/ahmad.khdr

Course Book

Course Description	This course introduces computer programming using the Visual Programming language with object-oriented programming principles. Emphasis is on event-driven programming methods, including creating and manipulating objects, and classes, and using object-oriented tools such as the class debugger. While the Visual C# programming language helps students write Windows application programs, students still need to write code and be able to plan their applications. This course will show students how to learn the building blocks of programming, including using variables, control structures, and loops as well as how to write and use their own functions. They will learn how to use the large and varied library of controls Windows offers. And learn how to access files and handle errors. Upon completion, students should be able to design, code, test, and debug at a beginning level.
Course objectives	• Understand the benefits of using Microsoft Visual C#.NET as a tool for building applications. • Understand the Visual C# event-driven programming concepts, terminology, and available tools • Learn the fundamentals of designing, implementing, and distributing a Visual C# application • Learn to use the Visual C# toolbox • Learn to modify object properties • Learn object methods • Use the menu design window
Student's obligation	**1. Assignments:** In their academic semester, students are obliged to take midterm and final exams, do 8 quizzes, give 2 presentations, writing 4 reports and solving 6 home works as their assignments. **2. Attendance Policy:** Students are expected to attend each class for the entire semester. Students are responsible for material present in lectures. Only students with official absence, family crises, and illness are excused from class. The student who misses 10 percent of the classes will be placed on probation. **3. Make up Policy:** Since all examination are announced in advance, ZERO grade will be given to any missed examination unless a student has an acceptable reason, such as illness, for not being able to take the examination during all those days when the examination was announced.
Required Learning Materials	• Students attending classes regularly, Group work, Doing assignments, Class activities., Quizzes, Lab Reports.

Evaluation		**Task**	**Weight (Marks)**	**Due Week**	**Relevant Learning Outcome**
		Paper Review	Null	Null	
	Assignments	Homework	10	3,5	
		Class Activity	2	Null	
		Report	Null	Null	
		Seminar	Null	Null	
		Essay	6	Null	
		Project	10	Null	
		Quiz	8	3,6,9,12	
		Lab.	Null	Null	
		Midterm Exam	24	7	
		Final Exam	40	13	
		Total	100	Null	

	After completing the course, students will be able to:
Specific learning outcome:	• Knowledge: Use the different elements of a visual programming language as building blocks to develop correct, coherent programs. • Application: Program using the fundamental software development process, including design, coding, documentation, testing, and debugging. • Analysis: Analyze problems, develop conceptual designs that solve those problems, and transform those designs into Visual Programs with VB.Net.
Course References:	**Key References**

Practical Topics	Week	Learning Outcome
• C# Language Overview • Introduction to Visual Studio, Windows Forms Applications	1 - 2	Gain proficiency in C# syntax and object-oriented concepts while mastering Visual Studio tools for creating Windows Forms Applications.
• Visual C# environment Solution space, name space, .cs files, code area, menu bar, tool bar. • C# Toolbox and Events: Labels, Textbox's, Buttons and message box	3 - 4	Master Visual C# environment components and Toolbox controls for efficient Windows Forms app development.
• C# Toolbox and Events: Check Boxes, Radio Buttons, Compo Box, List Boxes. • Menus, Toolbars and Status Bars Main Menus Context Menus, building a Status Bar, building a Toolbar, Using the Timer Control	5 - 6	Harness C# Toolbox controls like Check Boxes, Radio Buttons, and Menus alongside toolbars and status bars, including Main Menus, Context Menus, and the Timer Control for comprehensive Windows Forms app design.
• C# toolbox and Events: Tree View, List View with, User Control, Inheriting User Control, Custom Control .application example	7	Master C# Toolbox controls such as Tree View and List View, and explore advanced concepts like User Control inheritance and Custom Control creation through practical application examples.
• Midterm Examination	8	
• C# toolbox and Events: Rich Textbox, Color Dialog, Font Dialog View Standards. • C# toolbox and Events: Open file dialog Save file dialog, Menu Strip, Tool Strip, Context Menu Strip	9 - 10	Explore C# Toolbox controls like Rich Textbox, Color Dialog, and Font Dialog, along with standard View options, and delve into advanced functionalities including Open and Save file dialogs, Menu Strip, Tool Strip, and Context Menu Strip through hands-on event-driven programming.
• Notepad example • C# toolbox and Events: Picture Box, Timer, Group Box and Panel.	11 - 12	Learn through a practical Notepad example, integrating C# Toolbox controls like Picture Box, Timer, Group Box, and Panel to enhance functionality and user interface design.
• C# Tool Box and Events: Tab Control, VScroll Bars and HScroll Bars, Track Bar, Progress Bar, Notify Icon, (Numeric and Domain) Up Down • Introduction to Data Binding • C# Data Grid View Binding - SQL Server dataset, Data Grid View Binding - OLEDB dataset	13 – 14	Explore C# Toolbox controls like Tab Control, Scroll Bars, and Data Grid Views, and delve into Data Binding techniques for seamless integration with SQL Server and OLEDB datasets.
• Data Grid View operation with example	15	Learn Data Grid View operations through practical examples, mastering functionalities such as data display, manipulation, and interaction within C# applications.
• Final Exam	16	

Extra notes:

Ask questions, Respect and listen to your classmates, and the teacher, Raise your hand to speak, Be prepared for class, Be quiet when the teacher and your classmates are talking, Share new ideas, Respect others' property, Keep your workspace tidy, Be kind, Always do your best, Be a good friend, Be on time, Share with others, Use equipment properly, turn in your homework on time, Use positive language, Listen with your ears and your eyes, Contribute to discussions, Be respectful of others' ideas, Follow the teacher's directions, Cooperate with your classmates, Be creative, Be honest, Use technology appropriately, Be proud of your work

External Evaluator

As a participant I supported and reviewed the curriculum of the course book and I see It suitable for the first graders and it is quite academic and at the level of the institute