


AMOU UNIVERSITY
“A Vehicle for Peace and Development”
AMOU UNIVERSITY



FACULTY OF COMPUTING AND ICT

BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY PROGRAMME

ACADEMIC YEAR 2015/ 2016

COURSE DESCRIPTION

BIT 313	Application Programming1(VB1)	
Contact Hours	52	
Pre-requisite	BIT 225 Programming Methodology (C Language) BIT 221 Principles of Database Management System(Ms Access)	
Purpose/Aim	In this Visual Basic training course, students learn the VBA language, to handle run-time errors, to debug Visual Basic applications, to work with forms and controls, to add simple database support to Visual Basic applications, and much more.	
Course Objective (Indicative Learning Outcomes)	Students will learn topics including components of a Visual Basic application; Use ActiveX controls.(ADODC-Activex Data Object Database Connection); Distinguish between event-driven vs. procedural programming; Create forms and menus; Manipulate form and control properties; Compile an application with the native code compiler; Master Visual Basic for Applications (VBA) control structures; Handle run-time errors; Add database support to your application; Manage data with ADODB (Activex Data Objects for Database); Create your own objects; Manipulate items in collections; Work with the Windows API; Add status bars and toolbars with the Windows common controls; Optimize your programs for size and speed.	
Course Content	<ul style="list-style-type: none"> • Your First Visual Basic Program <p>Welcome to Visual Basic!; A simple Project</p> <ul style="list-style-type: none"> • Adding Controls to Forms <p>Visual Basic Controls ; Adding and Manipulating Controls ; Changing Design Time Control Properties;</p> <ul style="list-style-type: none"> • Understanding Events <p>Introducing Events ; Event Procedures; The Form Load Event; The Form Resize Event; Command Button Click Event ; Text Box Change Event ; The Timer Control's</p>	



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	<p>Timer Event ; GotFocus/ LostFocus Events.</p> <ul style="list-style-type: none">• Working with Forms and Controls <p>Setting Properties at Run Time ; Setting Form Properties ; Setting Control Properties ; Using ActiveX Controls ; Adding ActiveX Controls to a Project ; Using the MonthView ActiveX Control;</p> <ul style="list-style-type: none">• Creating and Using Menus <p>Menus in Visual Basic ; Using the Menu Editor ; Working with Menus ; Manipulating Menus at Run Time;</p> <ul style="list-style-type: none">• Compiling and Distributing Applications <p>Finishing Touches ; Project Properties ; Native Code vs p-code ; Creating Your Executable; Using the Package and Deployment Wizard.</p> <ul style="list-style-type: none">• Working with VBA <p>Creating a Simple Procedure ; Variables and Parameters ; Data Types ; Using Constants; Investigating Built-In Functions; Branching Structures; Looping Structures</p> <ul style="list-style-type: none">• Handling Errors <p>Handling Syntax Errors; Handling Run-Time Errors; The Error Handling Standard; Taking a Closer Look; Who Handles Errors?</p> <ul style="list-style-type: none">• Debugging Applications <p>Handling Logic Errors; Watch Expressions; The Debugging Process</p> <ul style="list-style-type: none">• More Form and Control Issues; <p>Using Multiple Forms ; List Boxes Revisited; Control Arrays</p> <ul style="list-style-type: none">• Adding Simple Database Support <p>Support for Data Access in Visual Basic; Using the ADO Data Control; Binding Controls to Data; Writing Code for the Data Control</p> <ul style="list-style-type: none">• An Introduction to Objects <p>What Is an Object?; The Object Browser; System Objects; Introducing Object Variables; Classifying Objects ; Referring to Objects ; Using the Global Forms Collection; Working with External Objects</p> <ul style="list-style-type: none">• Managing Data with ADO <p>What Is ADO? ; Getting Started with ADO; The ADO Object Hierarchy; The ADO Connection Object; Working with Recordset Properties and Methods; The Command Object; Updating Recordset Data ; More Command Objects</p> <ul style="list-style-type: none">• ADO and Unbound Forms <p>Forms and ADO ; Displaying Data on the Form; Changing Data on the Form; Finding Data on the Form; Using a Default Recordset; Maintaining State Information;</p>
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	<ul style="list-style-type: none"> Using User Interface Data Tools <p>What Is Wrong with the ADO Data Control?; Taking Advantage of the Data Environment; The Hierarchical FlexGrid Control; Creating Reports in Visual Basic</p> <ul style="list-style-type: none"> Using Form Modules <p>What Is a Form?; Adding Form Methods ; Adding Form Properties ; Implementing Dialog Boxes; Creating Multiple Instances of a Form ; Life Cycle of a Form ; TextFile: Working with Text Files ; Using the Class Builder ; Creating MDI</p> <ul style="list-style-type: none"> Applications <p>What Is MDI?; Creating an MDI Application ; Working with MDI Applications ; Using Windows Common Controls</p>		
Learning & Teaching Methodologies	Lectures, tutorials and computer laboratory exercises		
Instructional Materials/Equipment	Classroom with audio visual aids Computer laboratory		
Course Assessment	Type	Weighting (%)	
	Final Examination	60	
	Mid Term Examination	20	
	Assignment	10	
	Attendance	10	
	Total	100	
Recommended Reading	Title	Author	Publisher
	Programming in Visual Basic 6.0	Julie Bradley and Anita Millspangh	
Additional Reading	Visual Basic : How to Program	Deitel and Deitel	
	Visual Basic Programming 6.0	Murach	
	Database Programming with Visual Basic 6.0 in 21 days	Techmedia	
Other Support Material	A variety of multimedia systems and electronic information resources as prescribed by the lecturer. Various application manuals, URL search and journals.		