

**DEPARTMENT OF MATHEMATICS  
THE MADURA COLLEGE (AUTONOMOUS), MADURAI-11.**

**CERTIFICATE COURSE ON VISUAL BASIC PROGRAMMING**

**DESCRIPTION:**

Visual Basic is a third generation even – driven programming language first released by Microsoft in 1991. It evolved from the earlier Dos Version called BASIC. Since then Microsoft has released many versions of VISUAL BASIC and the final version is VISUAL BASIC 6.0. Visual Basic is the most widely used programming language for exacting Window applications. It is easy to learn as it does not require the user to memorize difficult commands like other languages. Visual Basic environment enable the user to create the application program and its components literally by clicking the mouse button for selection the menu items. Visual Basic make user GUI (Graphical User Interface) for creating powerful applications. GUI environment enable the user to interact with the sysem in a simpler and easier way. The object of the course is to develop a look and feel application programs using IDE (Integrated development Environment) and to develop data base programming.

**CERTIFICATE COURSE ON DECISION MAKING AND INVESTMENT ANALYSIS**

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Visual Basic is a third generation even – driven programming language first released by Microsoft in 1991. It evolved from the earlier Dos Version called BASIC. Since then Microsoft has released many versions of VISUAL BASIC and the final version is VISUAL BASIC 6.0. Visual Basic is the most widely used programming language for exacting Window applications. It is easy to learn as it does not require the user to memorize difficult commands like other languages. Visual Basic environment enable the user to create the application program and its components literally by clicking the mouse button for selection the menu items. Visual Basic make user GUI (Graphical User Interface) for creating powerful applications. GUI environment enable the user to interact with the sysem in a simpler and easier way. The object of the course is to develop a look and feel application programs using IDE (Integrated development Environment) and to develop data base programming.

**CERTIFICATE COURSE on LaTeX**

**DESCRIPTION:**

This course explores a new way of writing and typesetting documents, articles, books, papers, thesis, presentation etc., using a document preparation system called  $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$ . LaTeX is widely used throughout the sciences and is available, free of charge, for almost any computer. Because of its popularity, every year a new batch of students and researchers wants to pick up the rudiments of LaTeX. It contains provisions for automatic running heads, sectioning, tables of contents, cross-referencing, equation numbering, floating tables and figures. This course provides students with an introduction to basic typesetting, inserting tables, enumerated lists, typesetting mathematical formulas, complicated matrices structures, including graphics, inserting pictures, diagrams, making a bibliography in LaTeX and presentation using beamer.

<b>DEPARTMENT OF MATHEMATICS</b>			<b>Certificate Course</b>				
<b>Course Type</b>	<b>Course Code</b>	<b>Course Code Course Title</b>	<b>Credits</b>	<b>Total Contact Hours</b>	<b>CIA</b>	<b>Ext</b>	<b>Total</b>
Value Added Course		Certificate Course on Visual Basic Programming	2	30			

**LEARNING OBJECTIVES:**

- To enable the students to familiarize with GUI environment.
- To make them understand VISUAL BASIC PROGRAMMING.
- To impart knowledge of how to develop data Base Programming.

**LEARNING OUTCOMES:**

- In terms of knowledge, improves the ability to develop effective coding using VB.
- In terms skills, use the language VB to construct database programming.

**UNIT – I:**

Introduction – Visual Programming Environment, IDE (Integrated Development Environment) – Menu bar – Tool bar – Project Explorer – Property Window – Form layout window – Tool box – Forms designer – Object browser.

**UNIT – II:**

The language –Variables, Data types, Modules, Control Structures, If – Then statement, If- then –else statement, select – case statement, do – while loop, do – loop - while, do – loop – until, While – Wend statements.

**UNIT – III:**

Event driven Programming – Mouse events – keyboard events, Procedures – Sub-Procedures – Event Procedures – Function procedures.

**UNIT – IV:**

Menu driven Programming – Menu Editor – Dialog Boxes – Predefined dialog box – custom box – Common dialog control.

**UNIT – V:**

Graphics and Database programming - Graphical controls – Graphics methods, Database Programming using Data control, using codes.

**REFERENCE BOOKS:**

Mastering Visual Basic 6 by EvangelosPetrautsos, BPB Publications (1998).  
Visual Basic 6 by Meerach’s Series, Reprint 2002, BPB Publications.