George Brown
The Toronto City College

## COURSE OUTLINE

# Centre for Continuous Learning
# Technology Division

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|---|---|
| **COURSE NAME:** | **Visual Basic .NET** |
| **COURSE CODE:** | **COMP 9371** |
| **CREDIT HOURS:** | **60** |
| **PREREQUISITES:** | **COMP 9336 (Intro to Programming Logic)** |
| **COREQUISITES:** | **NONE** |
| **EFFECTIVE DATE:** | **January 2005** |
| **TEACHER:** | **Brian Bath**<br>**Email:** BBath@GbrownC.On.Ca<br>**Web Site:** http://liad.gbrownc.on.ca/comp9371 |
| **PHONE:** | **(416) 415-5000, ext. 4861** |
| **PLAR ELIGIBLE:** | **YES ( ) NO ( )** |

**NOTE TO STUDENTS:** Academic Departments at George Brown College will NOT retain historical copies of Course Outlines. We urge you to retain this Course Outline for your future reference.

**FOR OFFICE USE ONLY**

**ORIGINATOR:**_____
**SIGNATURE** **DATE**

**CHAIR:**_____
**SIGNATURE** **DATE**

**DATE OF REVISION:**_____

**EQUITY STATEMENT**
George Brown College values the talents and contributions of its students, staff and community partners and seeks to create a welcoming environment where equity, diversity and safety of all groups are fundamental. Language or activities that are inconsistent with this philosophy violate the College policy on the Prevention of Discrimination and Harassment and will not be tolerated. The commitment and co-operation of all students and staff are required to maintain this environment. Information and assistance are available through the Continuing Education Co-ordinator or Chair for the subject area of this course.

**STUDENT RESPONSIBILITIES**
Students should refer to the Continuing Education Course Guide for information on the grading system, withdrawals, exemptions, class assignments, missed tests and exams, supplemental privileges and academic dishonesty. Students are required to apply themselves diligently to the course of study and to prepare class and homework assignments as given. Regular attendance, though not a requirement, is strongly advised. Past student performance shows a strong relationship between regular attendance and success.

## COURSE DESCRIPTION:

This course introduces essential concepts and techniques used in Visual Basic programming. We begin by learning how to use the .NET IDE development environment and continue to introduce MDI Applications and the use of User Defined Types. The course includes learning to read and write to and from text files and databases. The use of object orientation and event-driven programming techniques are essential concepts in VB .NET and many other 4$^{th}$ generation languages. When understood, these techniques will enable you to easily learn other languages. Other course material includes: routine but essential data validation, acceptable interface design principles, basic application architecture and design, and meeting appropriate documentation standards and programming conventions.

## COURSE OUTCOMES:

1. Learn the fundamentals of computer programming using Visual Basic .NET.

2. Learn routine data validation techniques.

3. Incorporate intrinsic, database, common controls and objects in an application.

4. Build applications that interact with databases

5. Build SDI and MDI applications.

6. Build applications that read and write to files.

7. Understand structured error handling and debugging techniques.

8. Understand and practice acceptable design methodologies incorporating common conventions.

## DELIVERY METHODS:

This course will demonstrate concepts through lectures and demonstrations delivered by the teacher. These concepts are then backed up with practical hands-on lab exercises and assignments.

## LIST OF TEXTBOOKS AND OTHER TEACHING AIDS:

1. Programming With Microsoft Visual Basic.NET – An Object Oriented Approach; Michael Ekedahl & William Newman,; Course Technology; ISBN: 0-619-01658-4

## TESTING POLICY:

1. A score of zero may be recorded for a missed assignment or examination unless the student presents the teacher with official substantiation of the absence the first day she/he returns to class. Due notice is provided for quizzes and exams. **Attendance is not optional**. Electronically distributed tests may only be written at the appointed time.

2. To register a pass in this course, the student must achieve a final mark of 50 percent on both the theory portion and the practical portion of the course.

3. In order to be credited for assignments the student MUST average AT LEAST 50% on both EXAMS, otherwise the student's test marks will become the course mark.

4. The student is solely responsible for keeping back-up copies of each assignment or electronically submitted test.

5. Students are responsible for reading the appropriate course material prior to the lecture.

## ASSIGNMENT POLICY:

1. All assignments are due promptly as indicated in the assignment paper. Assignments submitted past that time will be marked as late. A late penalty of 10% will be deducted from assignments for each class the assignment is late.

2. All assignments and projects submitted must adhere to the documentation standards and programming requirements of the instructor.

3. The student is responsible for keeping at least one back up copy of each assignment submitted that has not been altered since the initial submission.

## EVALUATION SYSTEM:

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| Assignments | 30% |
| Quizzes | 10% |
| Class Participation | 10% |
| Midterm Examination | 25% |
| Final Examination | 25% |

## GRADING SYSTEM

| GEORGE BROWN COLLEGE | | | | |
|---|---|---|---|---|
| **A+/A 86-100** | **B+ 77-79** | **C+ 67-69** | **D+ 57-59** | **Below 50 F** |
| **A- 80-85** | **B 73-76** | **C 63-66** | **D 50-56** | |
| | **B- 70-72** | **C- 60-62** | | |

**Excerpt from the College Policy on Academic Dishonesty:**
**The *minimal* consequence for submitting a plagiarized, purchased, contracted, or in any manner inappropriately negotiated or falsified assignment, test, essay, project, or any evaluated material will be a grade of zero on that material.**

**TOPICAL OUTLINE:**

| Topical Outcome | Content | Chapter/ Reference |
|---|---|---|
| 1, 8 | Introduction<br>The MDE Environment – Creating a Solution – Performing Assignments – Using Library Functions – Designing the Interface – Manipulating Design & Runtime Properties | Chapters 1, 2 |
| 1, 3, 5, 8 | Using Variables<br>Intro To Data Types –Documentation & Design Standards – Operators & Precedence – The Object Browser | Chapter 3 |
| 1, 3, 8 | Decision Making<br>Using Constants – New Controls – Logical Operators – Data Conversion – Booleans - | Chapter 4 |
| 1, 2, 3, 8 | Data Validation<br>Using String Data – Scope – Writing General Procedures – MessageBox – Call By Reference & Value | Chapter 5 |
| 1, 3 | Iterative Control Structures<br>The Timer – Object Declaration | Chapter 6 (p. 212 – 222, 235-6 |
| 1, 6 | Reading and Writing Files<br>Using Arrays & Lists – Using Structs – Constructors – Combo & List Boxes | Chapter 7 |
| 3, 4 | Databases using ADO.NET<br>Creating Menus –DataBinding – The DataSet – ADO Objects – Common DB Operations | Chapter 8 |
| 3, 6, 7 | Windows Dialog Controls<br>The APP Class – Error Handling – Rich Text Processing & Control | Chapter10 |
| 3, 4, 5 | The MDI Application<br>Windows Common Controls – The Toolbar – Status Bar – Image List – Global Procedures | Chapter 11 |