COURSE OUTLINE
FACULTY OF TECHNOLOGY
INFORMATION TECHNOLOGY

COURSE NAME:	**Windows Application Development**
COURSE CODE:	**COMP 1167**
CREDIT HOURS:	**56 Hrs**
PREREQUISITES:	**COMP 1166**
COREQUISITES:	**NONE**
EFFECTIVE DATE:	**January, 2006**
PROFESSOR:	**Ylber Ramadani**
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PLAR ELIGIBLE:	**YES ( ) NO (X)**

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: YLBER RAMADANI _____
SIGNATURE DATE

CHAIR: GERRY DRAPPEL _____
SIGNATURE DATE

DATE OF REVISION: MAY 2005

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 which are inconsistent with this philosophy violate the College policy on the Prevention of Discrimination and Harassment and will not be tolerated. The commitment and cooperation of all students and staff are required to maintain this environment. Information and assistance are available through your Chair, Student Affairs, the Student Association or the Human Rights Advisor.

STUDENT RESPONSIBILITIES: Students should obtain a copy of the ***Student Handbook*** and refer to it for additional information regarding 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 provides students with the skills required to build Microsoft® Windows® Forms applications by using the Microsoft .NET Framework. The course will cover the major topics for Windows client application programming on the .NET Framework. These topics include: Windows Forms, GDI+, simple data access, interoperating with unmanaged code, threading and asynchronous programming issues, simple remoting, Web access, Web Services consumption, debugging, security, and deployment issues for desktop applications.

GENERIC SKILLS:

The college is committed in ensuring that students have the full range of knowledge and skills required for full participation in all aspects of their lives including skills to enable them to be life long learners. To ensure graduates have this preparation, such generic skills as literacy and numeracy, computer, interpersonal, communications, and critical thinking skills will be embedded in all courses. The table below indicates which generic skills will be taught (**T**), practiced (**P**), and/or evaluated (**E**) in this course.

Skill	T	P	E	Skill	T	P	E
Communicate clearly- spoken, written, visual presentation			**X**	**Evaluate information based on quantitative and/or qualitative data**		**X**	**X**
Reframe ideas and concepts to demonstrate understanding using narrative, numerical, symbolical forms	**X**	**X**	**X**	**Create innovative strategies and/or products that meet identified needs**	**X**	**X**	
Apply mathematical techniques	**X**	**X**	**X**	**Manage time and other resources to attain goals**		**X**	**X**
Use the computer to perform tasks	**X**	**X**	**X**	**Take responsibility for own actions**			
Interact and work in teams to achieve goals	**X**	**X**	**X**	**Adapt to new situations and demands**	**X**		
Apply critical thinking in problem solving and making decisions	**X**	**X**	**X**	**Assess own skills, knowledge and experience**			
Collect, analyze and organize information	**X**	**X**					

COURSE OUTCOMES:

Upon completion of this course, the student will have demonstrated the ability to:

1. Create and populate Windows Forms.
2. Organize controls on Windows Forms.
3. Create menus in a Windows Forms application.
4. Add code to form and control event procedures in a Windows Forms application.
5. Create Multiple Document Interface (MDI) applications.
6. Use dialog boxes in Windows Forms applications.
7. Validate user input in a Windows Forms application.
8. Create and use user controls in a Windows Forms application.
9. Create licenses for controls.
10. Bind Windows Forms applications to various data sources by using Microsoft ADO.NET.
11. Consume XML Web services from Windows Forms applications.
12. Use .NET and COM components in a Windows Forms application.
13. Call Microsoft Win32® APIs from a Windows Forms application.
14. Print documents in a Windows Forms application.
15. Make asynchronous calls to methods from a Windows Forms application.
16. Debug a Windows Forms application.
17. Incorporate accessibility features in a Windows Forms application.
18. Localize a Windows Forms application.
19. Add support for Help to localize a Windows Forms application.
20. Create Help files in a Windows Forms application.
21. Deploy a Windows Forms application.
22. Implement code access and role-based security in a Windows Forms application.
23. Add deployment flexibility to applications by using shared assemblies.

DELIVERY METHODS:

The instructional methods of this course are comprised of a combination of lectures, demonstrations, hands-on exercises and take-home assignments.

LIST OF TEXTBOOKS AND OTHER TEACHING AIDS:

Required:

1. Developing and Implementing Windows-based Applications with Visual C#. NET and Visual Studio .NET
   Author: Amit Kalani
   Publisher: Prentice Hall
   ISBN: 0-7897-2823-0

2. WebCT: http://webct.gbrownc.on.ca

Recommended Resources:

1. MSDN (See help menu in Visual Studio .NET)

TESTING POLICY:

Students are required to complete lab tests, quizzes, exams as well as take-home assignments.
See the Missed Assessments and Late Assignments Policy as well as George Brown College policies and procedures regarding withdrawals, exemptions, attendance, class assignments, academic dishonesty and supplemental examinations (refer to http://www.gbrownc.on.ca/Admin/VPAcad/policies/index.html).
Supplemental tasks/examinations are not a right but a privilege granted by a Promotion Committee on an individual basis to students who have failed a course after attending the entire course and attempting the final examination. Individual professors do not make decisions regarding the policies of the Promotion Committee.

ASSIGNMENT and TEST POLICY:

If a student misses a test because of medical reasons and can provide a doctor's note, he/she will be given a chance to rewrite the test at a later date.
All assignments must be submitted on the due date in class. For every day past the due date there will be 10% penalty unless the student has notified the professor (via e-mail, phone or in person) ahead of due date that he/she has a valid reason for late submission.

EVALUATION SYSTEM:

To pass the course student must receive a minimum of 50% of total mark.
The final grade is based on student performance on examinations, assignments and lab tests as follows:

1. Assignments (2) 25% (Assignment #1 @ 10%, Assignment #2 @ 15%)
2. Lab-Tests (3) 30% (10% each)
3. Quizzes (2) 10% (5% each)
3. Mid-term Exam 15%
4. Final Exam 20%

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:

Week	Topic	Outcome	• Content	Chapter/ Reference
WEEKS 1, 2	1	1, 4	• Creating a Windows Forms Application • Setting and Adding Properties • Using Visual Inheritance • Event Handling • Building Graphical Interface Elements by Using the System.Drawing Namespace	1
WEEKS 2,3	2	2, 3, 5, 6	• Adding Controls to a Windows Form • Setting Properties of Controls • Handling Control Events • Dialog Boxes • Common Windows Forms Controls • Creating Menus and Menu Items • Creating MDI Applications	2
WEEK 4	3	7	• Understanding Exceptions • Creating and Using Custom Exceptions • Managing Unhandled Exceptions • Validating User Input • ***Lab Test #1 (lab)***	3
WEEK 5	4	8, 9	• Creating and Managing .NET Components • Creating and Managing .NET Assemblies • ***Quiz #1 (lecture)***	4
WEEK 6	5	10	• Binding Data to the User Interface • Transforming and Filtering Data	5
WEEK 7			• ***MID-TERM EXAM***	
WEEK 8	6	10	• Accessing and Manipulating SQL Server Data • Accessing and Manipulating Data • Handling Data Errors • ***Assignment #1 due date (week 8)***	6
WEEK 9	7	11, 15, 18	• Understanding Web Services • Creating Web Services • Discovering Web Services • Instantiating and Invoking Web Services • Localization and Globalization • Implementing Localization for the User Interface • Converting Existing Encodings • Implementing Mirroring • Validating Non-Latin User Input • ***Lab Test #2 (lab)***	7, 8
WEEK 10	8	12, 13, 17, 19, 20	• Using ActiveX Controls • Using COM Components • Using COM+ Components • Using PInvoke • Selecting a Help Compiler • Creating Help Projects Using HTML Help 1.3 • Creating Help Project Using HTML Help 2 • Implementing User Assistance • Implementing Accessibility Features	9, 10

WEEK 11	9	14, 16	• Using the PrintDocument Component • Using the Printing Controls • Testing • Tracing • Debugging • ***Quiz #2***	11, 12
WEEK 12	10	21, 23	• Deployment Tools • Deploying a Windows Application • Customizing a Setup Project • Shared Assemblies • Creating Installation Components • URL Remoting • Methods of Deployment • Windows Logo Program Requirements • ***Lab Test #3 (lab)***	13
WEEK 13	11	22	• Managing a Windows Process • Working with Event Logs • Working with Performance Counters • Designing a Windows Application for Performance • Configuring Control Licensing • Configuring a Windows-Based Application • Configuring Security • Configuring Authorization • ***Assignment #2 due date (lab presentation)***	14, 15
WEEK 14			• ***FINAL EXAM***	