MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE
COURSE OUTLINE

DEPT. Computer Science COURSE NO. CSCI 2200

NUMBER OF CREDITS: 4

COURSE TITLE: Visual Basic Programming

CATALOG DESCRIPTION: Creates graphical user interface applications through programming in Visual Basic. Topics covered are arithmetic statements, conditional statements, looping structures, data structures, sequential files, random files, design and graphics. Uses DDE, Dynamic Data Exchange, as a way of sharing electronic data between Windows applications and emphasizes problem solving using an OOED, Object-Oriented Event-Driven, approach.

AUDIENCE: Any student interested in learning a programming language. Required in some degree programs.

FULFILLS MN TRANSFER CURRICULUM AREA(S): (Leave blank if not applicable)

PREREQUISITES OR NECESSARY ENTRY SKILLS/KNOWLEDGE: Csci 1102

LENGTH OF COURSE: Full Semester

THIS COURSE IS USUALLY OFFERED: Fall or Spring each year

Four goals are emphasized in course at Minnesota West Community & Technical College:

1. ACADEMIC CONTENT:
   a. Introduces Students to a new way to write computer programs using Visual Basic. Students become familiar with the object-oriented/event-driven language by concentrating on writing specific Visual Basic instructions.

2. THINKING SKILLS:
   a. Emphasizes problem-solving techniques using an object-oriented/event-driven approach (OOED).

3. COMMUNICATIONS SKILLS:
   a. Develops the ability to describe verbally and in writing the exact details of an OOED application.
   b. Uses DDE, Dynamic Data Exchange, as a way of sharing electronic data between Windows applications.

4. HUMAN DIVERSITY:
   a. Allows a student to create individually designed professional-looking applications using the GUI interface of Windows.
TOPICS TO BE COVERED:

<table>
<thead>
<tr>
<th>Designing an Application</th>
<th>Building an Application</th>
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<tbody>
<tr>
<td>Working with Controls</td>
<td>Creating the interface</td>
</tr>
<tr>
<td>Setting properties</td>
<td>Writing code, testing and debugging</td>
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<tr>
<td>Applications with Multiple Forms</td>
<td>Working with the Debug Window</td>
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<tr>
<td>Using Color, Menus, Data Control</td>
<td>Applications with Drag-and-Drop Functionality</td>
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<tr>
<td>Sequence, selection and repetition in coding</td>
<td>Sorting and Arrays</td>
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LIST OF EXPECTED COURSE OUTCOMES:

1. The student will learn how to work with various controls and code events to those controls
2. The student will learn how to use sequential programming structures
3. The student will learn how to use the repetition structure in code
4. The student will learn how to program using decision structures
5. The student will learn the difference and importance of variables and constants in a program
6. The student will be able to incorporate elements of all the other outcomes into one or more cohesive and comprehensive programs

LEARNING/TEACHING TECHNIQUES used in the course are:

<table>
<thead>
<tr>
<th>Guided Projects</th>
<th>Problem Solving</th>
<th>Tutorial lessons</th>
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<tbody>
<tr>
<td>Demonstrations</td>
<td>Creative Projects</td>
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ASSIGNMENTS AND ASSESSMENTS FOR THIS CLASS INCLUDE:

<table>
<thead>
<tr>
<th>Textbook Readings</th>
<th>Textbook Problems</th>
<th>Instructor Projects</th>
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<tbody>
<tr>
<td>Quizzes</td>
<td>Final Exam Project</td>
<td>Worksheets</td>
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</tbody>
</table>

EXPECTED STUDENT LEARNING OUTCOMES:

1. The student will learn how to work with various controls and code events to those controls
2. The student will learn how to use sequential programming structures
3. The student will learn how to use the repetition structure in code
4. The student will learn how to program using decision structures
5. The student will learn the difference and importance of variables and constants in a program
6. The student will be able to incorporate elements of all the other outcomes into one or more cohesive and comprehensive programs

The information in this course outline is subject to revision

Veteran Services: Minnesota West is dedicated to assisting veterans and eligible family members in achieving their educational goals efficiently. Active duty and reserve/guard military members should advise their instructor of all regularly scheduled military appointments and duties that conflict with scheduled course requirements. Instructors will make every effort to work with the student to identify adjusted timelines. If you are a veteran, please contact the Minnesota West Veterans Service Office.

To receive reasonable accommodations for a documented disability, please contact the campus Student Services Advisor or campus Disability Coordinator as arrangements must be made in advance. In addition, students are encouraged to notify their instructor.

This document is available in alternative formats to individuals with disabilities by
contacting the Student Services Advisor or by calling 800-658-2330 or Minnesota Relay Service at 800-627-3529 or by using your preferred relay service.

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