CSCI 120 Programming with Visual Basic II
Prerequisite: CSCI110 Programming with VB I
Credits 3
MW 3 – 4, T 1 - 3

Rhonda Tabish
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243-7808; Office Location: AD14D
Office Hours: MW 9 – 10
TR 9:30 – 10

COURSE DESCRIPTION:
Design and implementation of software using object-oriented programming practices. The class framework is used to apply the object-oriented techniques of encapsulation, polymorphism, and inheritance.

STUDENT PERFORMANCE OBJECTIVES:

1. Students will manage program complexity by applying the OOP design techniques of encapsulation, polymorphism, and inheritance.

2. Students will define, construct, and modify structures and classes.

3. Students will design and implement exception classes.

4. Students will design and deploy user interfaces for windows-based and web-based applications.

5. Students will construct applications to access database objects.


OPTIONAL SUPPLIES: USB Electronic Storage Drive (Jump-drive) to transport and backup files.
ATTENDANCE AND MAKEUP POLICY:

Students are expected to attend and participate in class. Because of the amount of material covered, it is important that students consistently attend class. Material covered in class will be helpful in completing course assignments. If class is missed it is the student’s responsibility to determine what catch up is required. **Late assignments are not accepted.** Emergency situations will be handled privately on a case by case basis.

ASSESSMENT PROCEDURES:

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<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Projects</td>
<td>50%</td>
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<tr>
<td>Quizzes</td>
<td>25%</td>
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<tr>
<td>Final Project</td>
<td>25%</td>
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GRADING SCALE:

<table>
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<tr>
<th>Score Range</th>
<th>Grade</th>
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<tbody>
<tr>
<td>90 - 100</td>
<td>A</td>
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<tr>
<td>80 - 89</td>
<td>B</td>
</tr>
<tr>
<td>70 - 79</td>
<td>C</td>
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<tr>
<td>60 - 69</td>
<td>D</td>
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FINAL PROJECT/EXAM: Thursday, December 11, 1:10 – 3:10

Be sure to use UMConnect for email communication. Check email daily. Attached assignments without a name will be discarded.

INCOMPLETE GRADE POLICY:

It is assumed that students have the responsibility for completing the requirements of the courses in which they are enrolled within the time framework of the semester. Incompletes may be given when, in the opinion of the instructor, there is a reasonable probability that students can complete the course without retaking it.

The incomplete is not an option to be exercised at the discretion of students. In all cases it is given at the discretion of the instructor within the following guidelines:

1. A mark of incomplete may be assigned students when:
   1. They have been in attendance and doing passing work up to three weeks before the end of the semester, and
2. For reasons beyond their control and which are acceptable to the instructor, they have been unable to complete the requirements of the course on time. Negligence and indifference are not acceptable reasons.

2. An incomplete which is not made up within one calendar year automatically will revert to the alternate grade which was assigned by the instructor at the time the incomplete was submitted.

3. An incomplete remains on the permanent record and is accompanied by the final grade, for example, IA, IB, IC, etc.

**ACADEMIC INTEGRITY:** All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University. All students need to be familiar with the Student Conduct Code. The code is available for review online at [http://www.umt.edu/SA/VPSA/index.cfm/page/1321](http://www.umt.edu/SA/VPSA/index.cfm/page/1321).

Using the Web to research materials and concepts is an integral part of learning in the twenty-first century. Studying with other students is a productive method of learning. A certain amount of collaborating on concepts with other students and using resources found on the Internet in an assignment is recommended. Copy and paste is not acceptable. It is expected that each student will input his/her assignment into the computer, and each student must be able to explain any assignment turned in. Collaboration on exams is strictly forbidden.

**DISABILITY ACCOMODATIONS:**

Eligible students with disabilities will receive appropriate accommodations in this course when requested in a timely way. Please contact me after class or in my office. Please be prepared to provide a letter from your DSS Coordinator. For more information, visit the Disability Services website at [http://www.umt.edu/dss](http://www.umt.edu/dss) or call 406.243.2243 (voice/text).

**CHANGES TO SYLLABI:**

Instructor reserves the right to modify syllabi and assignments as needed based on faculty, student, and/or environmental circumstances. If changes are made to the syllabus, amended copies will be dated and made available to the class.
CSCI 120 Programming with Visual Basic II
Course Outline

I. Basic Programming Review

II. An Overview of Object-Oriented Paradigm
   A. OOP defined
   B. Characteristics of an OOP Language
   C. OOP as an Abstraction Mechanism
   D. Abstract Data Types
   E. Designing Object Oriented Programs
   F. Structures
   G. Structure Members
   H. Structure Methods

III. Classes
    A. Building a Class
    B. Class Constructors
    C. Copy Constructors
    D. Access Modifiers
    E. Abstract Classes

IV. Exception Classes
   A. Exception Handling in VB.Net
   B. Creating and Using an Exception Class

V. User Interface
   A. Creating Web Forms
   B. Laying Out Web Forms
   C. Using Validator Controls
   D. Managing Web Projects

VI. Database Application Programming Interface
    A. ADO
    B. Data binding
    C. Data Sets
    D. Data Reader