Introduction to Visual Basic Programming (ITSE 1431)

Credit: 4 semester credit hours (3 hours lecture, 2 hours lab)

Prerequisite/Co-requisite: None

Course Description

Introduction to computer programming using Visual Basic. Emphasizes the fundamentals of structured design, development, testing, implementation, and documentation. Includes language syntax, data and file structures, input/output devices, and files.

Required Textbook and Materials

1. *An Introduction to Programming Using Microsoft Visual Basic 2008* , by Jan Marrelli, 1st Edition
    a. ISBN number is 13: 9780821950692
2. USB Flash Memory drive

Course Objectives

Upon completion of this course, the student will be able to:

1. Use structured programming techniques to create real world applications. (SCANS:C5, C6, C8, C9, C19, F1, F2, F3, F9)
2. Develop executable programs. (SCANS: C5, C6, C8, C9, F9)
3. Create graphical user interfaces. (SCANS: C5, C6, C8, C9, F2, F3, F9)
4. Create appropriate documentation. (SCANS: C5, C6, C8, C9, F1, F2, F3, F9)

SCANS Skills and Competencies

Beginning in the late 1980's, the U.S. Department of Labor **S**ecretary's **C**ommission on **A**chieving **N**ecessary **S**kills (SCANS) conducted extensive research and interviews with business owners, union leaders, supervisors, and laborers in a wide variety of work settings to determine what knowledge workers needed in order to perform well on a job. In 1991 the Commission announced its findings in *What Work Requires in Schools.* In its research, the Commission determined that "workplace know-how" consists of two elements: foundation skills and workplace competencies.

Course Outline

A. Introduction to Visual Basic
    1. Basic Program Operations
    2. Visual Basic & Visual Studio Languages
    3. .Net Framework 3.5
    4. Programming Tools

B. Graphical User Interface Design
    1. Form Design
    2. Using Form Tools
    3. Software Development Lifecycle
    4. Object & Class Properties

C. Design and Coding

Approved 10/2010

1. Syntax
2. Proper Save Methods
3. Event Handling
4. Importing Resources
5. Inteli-Sense

D. Variables and Arithmetic Operations
   1. Dim statements
   2. Data Types
   3. Data Entry
   4. Arithmetic Operators
   5. User Input to get Output

E. Using Decision Structures
   1. If..Then..Else
   2. Flow Charts
   3. Smart Device Applications
   4. Making Decisions
   5. Conditional Statements
   6. Error Catching

F. Loop Structures
   1. Advanced Flow Charts
   2. Do..While
   3. For Next Structure
   4. For..Next Loop
   5. Avoiding Infinite Loops
   6. Nesting Loops

Grade Scale

90 – 100	A
80 – 89	B
70 – 79	C
60 – 69	D
0 – 59	F

Course Evaluation

Final grades will be calculated according to the following criteria:

1. Daily work	60%
2. Quizzes	10%
3. Test & Final	30%

Course Requirements

1. Demonstrate proper System Life Cycle documentation
2. Create Flow Charts when required
3. Demonstrate proper form layout & code design

Course Policies

1. No food, drinks, or use of tobacco products in class.
2. Beepers, telephones, headphones, and any other electronic devices must be turned off while in class.
3. Do not bring children to class.
4. No late assignments will be accepted. Any assignment submitted after the Blackboard cut-off time will result in a ‘0’.

5. **Tests**. Students that miss a test are not allowed to make up the test. Students that miss a test will receive a grade of '0'.
6. If you wish to drop a course, the student is responsible for initiating and completing the drop process. If you stop coming to class and fail to drop the course, you will earn an 'F' in the course.
7. A grade of 'C' or better must be earned in this course for credit toward degree requirement
8. Test will be closed book/note and will test information in assigned chapters and material discussed in class.
9. All assignments will be completed using Blackboard. Assignment may NOT be submitted via email.
10. **Attendance**: Students should be present and punctual for all classes. Two absences are allowed. The first absence incurred after the initial two absences will result in the loss of one letter grade. Each absence after that will result in deducting half a letter grade from your overall grade.
11. **Tardiness**: If tardy, enter quietly and do not disturb the class. Students that are tardy or miss a class are responsible for all work and/or discussion missed. The student is responsible to obtain missed material from a classmate. **Do not expect your instructor to repeat a lecture & do not interrupt your instructor.**
12. Do not talk, type, or print while the instructor is talking to the class or when a student is asking a question that pertains to the class.
13. Refrain from "surfing" the Web during class, unless directed by your instructor.

Disabilities Statement

The Americans with Disabilities Act of 1992 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. Among other things, these statutes require that all students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodations for their disabilities. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409) 880-1737 or visit the office in Student Services, Cecil Beeson Building.

Course Schedule

Refer to Blackboard for actual assignments and due date

Week of	Topic	Reference
Week 1	Course introduction and policies Blackboard Navigation / How to save	
Week 2	Introduction to Visual Basic.Net	Chapter 1
Week 3	Graphical User Interface Design	Chapter 2

Week 4	Design and Coding	Chapter 3
Week 5	Review & First Test	Ch 1-3
Week 6	Variables and Arithmetic Operations	Chapter 4
Week 7	Variables and Arithmetic Operations	Chapter 4
Week 8	Review & Second Test	Ch 1-4
Week 9	Using Decision Structures	Chapter 5
Week 10	Using Decision Structures	Chapter 5
Week 11	Review & Third Test	Ch 1-5
Week 12	Loop Structures	Chapter 6
Week 13	Loop Structures	Chapter 6
Week 14	Review Third Test	Ch 1-6
Week 15	Special Topic	TBD
Week 16	Final Exam	

Contact Information:

Instructor: Josh McNamara

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Office Hours: MW: 10:30-11:15
12:20-200
TR: 1:05-2:00
4:05-5:30
F: 10:30-11:15