

Date Adopted: _____

Date Reviewed: August 2009

Date Revised: August 2009

CIS 212S Visual Basic Programming

I. CIS 212S Visual Basic Programming– 3 Semester Hours

II. Course Description

This course emphasizes BASIC programming using a graphical user interface. The course will emphasize graphical user interfaces with additional topics such as file handling techniques, simulation, and other selected areas. Upon completion, the student will be able to demonstrate knowledge of the topics through the completion of programming projects and appropriate tests.

III. Prerequisite

CIS 150

IV. Textbook

Textbook: Programming in Visual Basic 2008

Publisher: McGraw

Author: Bradley, Amanda

V. Course Objectives

- A. Explain Visual Basic.
- B. Design a user interface.
- C. Perform various calculations using visual basic programming.
- D. Develop a visual basic program that makes decisions.
- E. Develop a visual basic program that utilizes iteration structure.
- F. Develop a visual basic program that utilizes functions and procedures.
- G. Develop a visual basic program that utilizes data structures.
- H. Develop a visual basic program that utilizes error handling.

VI. Course Outline of Topics

- A. Introduction to Visual Basic
 1. Terms and definitions
 2. Review design applications
 3. Event driven object-oriented programming
 4. Uses for Visual Basic Programming
 5. Integrated Development Environment (IDE)
 6. Syntax
- B. Design a User Interface
 - a. Objects
 - i. Forms
 - ii. Controls
 - iii. Properties
 - b. Methods
 - c. Events
 - d. Input/output
 - e. Interface design guidelines
- C. Calculations
 - a. Data types
 - b. Variables and constants
 - c. Mathematical operations
 - d. Debugging
 - e. Intrinsic functions

- D. Decision Making
 - a. If statements
 - b. Select case
 - c. Relational operators
 - d. Logical operators
- E. Iteration
 - a. Looping structures
 - b. Do loops
 - i. Pretest/Post test
 - c. For loops
 - d. Counters
 - e. Accumulators
- F. Functions and Procedures
 - a. User defined functions
 - b. Parameters
 - i. By value
 - ii. By reference
- G. Data Structures
 - a. Arrays
 - b. Strings
 - c. Abstract data types
 - d. Classes
- H. Error Handling
 - a. Types of errors
 - b. Error handling methods

VII. Evaluation and Assessment

Evaluation and assessment will be determined by the instructor and specified on the instructor's class syllabus. Grades will be based upon following scale: A = 90 – 100%, B = 80 – 89%, C = 70 – 79%, D = 60 – 69%, and F = below 60%.

VIII. Attendance

Students are expected to attend all classes for which they are registered. Students who are unable to attend class regularly, regardless of the reason or circumstance, should withdraw from that class before poor attendance interferes with the student's ability to achieve the objectives required in the course. Withdrawal from class can affect eligibility for federal financial aid.

IX. Statement on Discrimination/Harassment

The College and the Alabama State Board of Education are committed to providing both employment and educational environments free of harassment or discrimination related to an individual's race, color, gender, religion, national origin, age, or disability. Such harassment is a violation of State Board of Education policy. Any practice or behavior that constitutes harassment or discrimination will not be tolerated.

X. Americans with Disabilities

The Rehabilitation Act of 1973 (Section 504) and the Americans with Disabilities Act of 1990 state that qualified students with disabilities who meet the essential functions and academic requirements are entitled to reasonable accommodations. It is the student's responsibility to provide appropriate disability documentation to the College. The ADA Accommodations Office is in FSC 305 (205-856-7731).