Course Syllabus

Department: Computing Sciences
Date: May 2012

I. Course Prefix and Number: CSC 215
   Course Name: Visual Basic
   Credit Hours and Contact Hours: 3 credit hours - 3 contact hours
   Course Description including pre- and co-requisites:
   Visual Basic is a Windows programming language whose function is to help the users build their own special-purpose Windows applications. The current version of VB will be used to implement programming concepts and development. Topics to be covered include basic programming constructs, file access, creating classes and objects, GUI design, and accessing data from a database. Pre-requisites: CSC115 with a grade of C or better or programming experience.

Relationship to Academic Programs and Curriculum
This course is a requirement for one of the advisement areas in the AAS IT and can be taken as a CSC elective for the AS Computer Science degree majors.

II. Course Outcomes and Objectives
   Learning Outcomes
   Upon completion of the course the participant will be able to:
   a. Build a windows Application
   b. Create a user interface following good GUI design guidelines
   c. Change attributes of controls by setting properties at design time or in code
   d. Write code to implement the business rules of the application
   e. Create classes and object
   f. Debug an application
   g. Access data from a database

   College Learning Outcomes Addressed by this Course:
   ✔ writing ✔ ethics/values
   ❑ oral communications ❑ citizenship
   ✔ reading ❑ global concerns
   ❑ mathematics ❑ information resources
   ✔ critical thinking ✔ computer literacy

III. Assessment Measures (Summarize how the College and student learning outcomes will be assessed):

Student learning outcomes will be assessed through a variety of activities including the following:
1. Assignments: Programming Problems
   Hands on projects will assess skills in writing, reading, computer literacy, critical thinking (problem solving) and ethics/values. These skills will include good design standards and programming standards and best practices used in industry including written documentation, both internal and
external to the source programs. Testing strategies will assess the ability to debug problems encountered in the problem solving and programming process.

2. Online text tests, given in a current online environment will assess the student’s ability to comprehend, interpret, analyze, and evaluate course content and reading materials. Chapter tests will be given in a current online environment to encourage students to read the course materials. The tests will measure their comprehension of the course concepts as related to problem solving and programming.

3. In-class quizzes will assess student writing capabilities, and well-reasoned arguments.
4. Students will be required to complete an in class final project that will assess reading, writing and problem solving skills.

IV. Methods of Instruction

Types of Course Materials
1. Textbook: A Visual Basic Programming textbook

Methods of Instruction
1. Lecture
2. Discussions
3. Demonstrations
4. Programming
4. Tutorials

V. General Outline of Topics Covered
- An Introduction to Visual Basic
- Creating a User Interface
- Variables, Constants, Methods, and Calculations
- Making Decisions in a Program
- Repeating Program Instructions
- String Manipulation and More Controls
- Sub and Function Procedures
- Arrays
- Structures and Sequential Access Files
- Creating Classes and Objects
- Using ADO.NET 2.0 (accessing data in a database)
- Creating Menus