CSCI 2311 - EVENT-DRIVEN PROGRAMMING

CREDIT HOURS: 3
PREREQUISITES: CSCI 1302
GRADE REMINDER: Must have a grade of C or better in each prerequisite course.

CATALOG DESCRIPTION

Emphasis on problem analysis, solution design, and programming methods. Implementation of commercial applications.

PURPOSE OF COURSE

To acquaint the student with computer problem solving using a visual development environment through the assignment of a variety of problems requiring solution development, program implementation, and documentation.

EDUCATIONAL OBJECTIVES

Upon successful completion of the course, students should be able to:

1. Create well-designed programs.

2. Demonstrate familiarity with elementary information systems concepts.

3. Demonstrate familiarity with visual and event-driven programming concepts and techniques.

4. Demonstrate familiarity with the basic concepts of object-oriented programming.

5. Demonstrate familiarity with the tools and techniques for constructing attractive and useful user interfaces.

6. Develop complete programs that solve intermediate problems dealing with various data types, elementary data structures, and objects.

COURSE CALENDAR

This course meets for a minimum of 37.5 lecture contact hours during the semester. Students have significant weekly extracurricular assignments which may involve reading, watching videos, or engaging in other forms of preparation. Students are expected to complete 10-15 laboratory or programming assignments, and 2-3 periodic exams in addition to the final exam. Students are expected to prepare for any class assignments or quizzes over the material covered in class or the extracurricular assignments. Successful completion of these activities requires at a minimum six additional hours of outside of classroom work each week.

CONTENT   Hours

Integrated Development Environment (IDE)...5
    Controls
    Debugging
    Using help

Data Types and Elementary Data Structures 5

Objects 10
    Classes

     Properties
     Methods
     Encapsulation
     Inheritance/reuse
     Polymorphism

Program Structure 10
     Control structures -- sequence, iteration, selection
     Program modularity
     Interprogram communication: subprograms, functions, parameters, scope

Files..3

Problem Solving and Algorithm Design..9
     Analysis
     Specification
     Design
     Implementation
     Testing
     Maintenance

Exams (plus final) 3

                                    TOTAL   45

REFERENCES

Gaddis & Irvine, <u>Starting Out With Visual Basic 2012</u>, 6th Ed., Pearson, 2014

Hoisington, <u>Microsoft7 Visual Basic 2012 Comprehensive</u>, Course Technology, 2014.