



CIS 1501

Division: Career and Technical Education

Department: Computer Information Systems

Course: CIS 1501

Title: Programming Language - Visual Basic

Catalog Description:

This course is an introduction to the Visual Basic programming language, particularly as the macro language for Windows for Windows programming. Includes Visual Basic building blocks, loops, decisions, functions, arrays, strings, pointers, basic file handling, object orientation, classes, and Windows controls.

General Education Requirements: N/A

Semesters Offered: TBA

Credit/Time Requirement: Credit: 3; Lecture: 3; Lab: 1

Clock/Hour Requirements: 60

Offered for Non-Credit: No

Prerequisites: CIS 1050 or instructor approval

Justification:

The Visual Basic programming language has been chosen by Microsoft as the official macro language for Windows programming. It is rich in features and predefined graphic controls for interaction with Windows. It also is compatible with many commands of earlier BASIC languages. The experience gained in this course will increase the chances of employment with almost any up-to-date software company. The counterpart course at UVSC is CSIS-151. It seems likely that 4-year colleges who do not now offer a Visual Basic programming course will elect to do so in the not too distant future or they will discover that their program is badly outdated. The course is recommended by the CIS Advisory Committee.

Student Learning Outcomes:

- After completing this course, the student should understand:
 - The structure of Visual Basic programs
 - Visual Basic language syntax
 - Pointers, classes, and other Visual Basic structures
 - The flexibility and power of Visual Basic
- After completing the course, the student should be able to perform the following:
 - Design well structured Visual Basic programs which will run under and utilize the facilities of Windows
 - Write working Visual Basic programs using the most common operators, expressions, icons, controls, and statements
 - Successfully debug Visual Basic programs

Content:

Course objectives will be accomplished by providing each student with learning experiences in the following subject areas:

- Introduction to Visual Basic program structure and object-oriented program concepts
- Visual Basic data types, classes, objects, constants, and relational and logical operators
- Character strings and formatted input/output
- Creating and using functions
- Using arrays and pointers
- Basic file handling
- Loops (iterations) and simple and multiway decisions
- Windows controls and icons

Lab work will consist of designing, writing, and debugging a series of Visual Basic programs running under Windows which demonstrate mastery of the theoretical concepts explained during lectures.

General Education Outcomes:

1) Read effectively, constructively, and critically.

Students will be required to read from the assigned text, reference manuals, and industry journals to retrieve, analyze, and synthesize information into design, repair, and troubleshooting situations.

4) Retrieve, evaluate, interpret, and deliver information through a variety of traditional and electronic media.

Students will research technical issues through the internet, industry journals, and reference manuals.

5) Apply a cultural and historical awareness to a variety of phenomena.

Students will be aware of the changing nature of the computer field and how it impacts use of dated software with newer and older hardware. An awareness of the history and development of computers is a must for professional preparation.

Key Performance Indicators:

In class:

- Student grades will be based on a combination of lab exercises (5-25%), quizzes (5-25%), tests (10-50%), and a final exam or project (20-50%).

Following class:

- Student performance in follow-on classes involving Windows programming would be assessed and characteristic deficiencies noted for improvement in teaching of subsequent sections of the course. Feedback from employers and 4-year colleges also would be sought.

Representative Text and/or Supplies:

- *Visual Basic 3 for Dummies* (current edition), Wallace Wang, San Mateo, CA: IDG Books Worldwide, Inc.

- **Supplementary Materials:** A diskette is provided to students for storing their computer files
- Occasional handouts also are distributed

Optimum Class Size: 15

Maximum Class Size: 24

Signatures:

I hereby submit this course syllabus:

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I hereby find this course consistent with the goals and resources of the Computer Information Systems Department:

Michael P. Medley, MBA, Assistant Professor, Chair

I hereby find this course consistent with the goals and resources of the Career and Technical Education Division:

Michael P. Medley, MBA, Assistant Professor, Dean

I have discussed the need for library resources related to this class with the person submitting the syllabus:

Lynn Anderson, MLIS, Technical Services Librarian (Main Campus)

Michelle Olsen, MLS, Campus Librarian (Richfield Campus)