

I. COURSE INFORMATION

- A. Computer Science 115 Visual Basic I
- B. 3 credit hours
- C. Hoisington, Connie. *Microsoft Visual Basic 2017 for Windows, Web, and Database Applications: Comprehensive*. 1st ed. Kentucky: Cengage, 2018
- D. Prerequisites: None

II. COURSE DESCRIPTION

This course is the study of programming principles, methodology, style, and the Visual Basic programming language to include structures, flow charting, data types, and syntax. Emphasis is placed on software development, analysis, design, documentation, writing, and execution of computer programs using Visual Basic with application in mathematics, business, and sciences.

III. LEARNING OUTCOMES

- A. Identify the use of a computer programming language, and Visual Basic
- B. Create a program GUI design
- C. Create program design and coding
- D. Understand variables and arithmetic operations
- E. Make mobile decision structures
- F. Understand loop structures
- G. Create web applications
- H. Use procedures and exception handling
- I. Use arrays and file handling
- J. Connect to a database using ADO.NET
- K. Describe multiple classes and inheritance
- L. Create web services and reports

IV. MAJOR CONTENT AREAS

- A. Microsoft Visual Basic programming language fundamentals
- B. Graphical user interface design principles
- C. Develop cycle for creating applications
- D. Well-written and readable programs using a disciplined coding style
- E. Visual Basic applications deploying on multiple platforms
- F. Implementing logical sequence, selection, and repetition using Visual Basic
- G. Appealing web applications creation

I. ASSIGNMENTS (may include but are not limited to)

- A. Microsoft Visual Basic programming language fundamentals
- B. Graphical user interface design principles
- C. Develop cycle for creating applications
- D. Well-written and readable programs using a disciplined coding style
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II. EVALUATION METHODS (may include but are not limited to)

- A. Application projects
- B. Examinations
- C. Assignments
- D. Attendance and participation