CIS 16A Course Outline as of Fall 2004

CATALOG INFORMATION

Dept and Nbr: CIS 16A   Title: INTRO PROG/VISUAL BASIC
Full Title: Introduction to Programming with Visual BASIC
Last Reviewed: 10/25/2010

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	4.00	Lecture Scheduled	3.00	17.5	Lecture Scheduled	52.50
Minimum	4.00	Lab Scheduled	0	17	Lab Scheduled	0
		Contact DHR	3.00		Contact DHR	52.50
		Contact Total	6.00		Contact Total	105.00
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 105.00   Total Student Learning Hours: 210.00

Title 5 Category: AA Degree Applicable
Grading: Grade Only
Repeatability: 00 - Two Repeats if Grade was D, F, NC, or NP
Also Listed As:
Formerly: CIS 16

Catalog Description:
This course is designed to introduce students to the concepts of computer programming using the Visual BASIC programming environment. The student will write programs to implement a variety of typical applications. There will be an emphasis on structured programming techniques, writing readable code and developing user-friendly programs. Concepts introduced will include: data types, constants and variables, flow of control, decisions and loops, forms and simple Visual BASIC controls as elements of the user interface, arrays, scope of variables, functions, string manipulation, rudimentary file operations, simple drag and drop and graphics operations, and error handling.

Prerequisites/Corequisites:

Recommended Preparation:
Completion of CIS 101A or CIS 105A or CIS 5, and eligibility for English 100 or ESL 100.

Limits on Enrollment:

Schedule of Classes Information:
Description: Introduces programming concepts using Visual BASIC with emphasis on structured

programming, readable code, and user-friendly programs. (Grade Only)
Prerequisites/Corequisites:
Recommended: Completion of CIS 101A or CIS 105A or CIS 5, and eligibility for English 100 or ESL 100.
Limits on Enrollment:
Transfer Credit: CSU;UC. (CAN CSCI6)
Repeatability: Two Repeats if Grade was D, F, NC, or NP

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

				Effective:		Inactive:
AS Degree:	**Area**			Effective:		Inactive:
CSU GE:	**Transfer Area**			Effective:		Inactive:
IGETC:	**Transfer Area**			Effective:		Inactive:
CSU Transfer:	Transferable	Effective:	Spring 1983	Inactive:		Fall 2015
UC Transfer:	Transferable	Effective:	Spring 1983	Inactive:		Fall 2015

CID:

Certificate/Major Applicable:
Certificate Applicable Course

COURSE CONTENT

Outcomes and Objectives:
Upon completion of this course students will be able to:
1. Use appropriate logic design tools to develop program logic prior to writing programs.
2. Demonstrate competency in using micro computers and proper editing techniques when writing computer programs.
3. Demonstrate ability to design screen forms and program output.
4. Write, test, and debug simple to reasonably complex computer programs in Visual BASIC, using structured programming techniques to solve a variety of typical problems.
5. Produce complete documentation for any given program.

Topics and Scope:

1. Introduction
   a. review of basic computer skills and the Windows graphical user interface
   b. the Visual BASIC programming environment
   c. elements of the user interface; forms and simple Visual BASIC controls and their properties and methods (controls including command buttons, labels, and text boxes)
   d. editing techniques, program format, and documentation
2. Language rules and structure
   a. obtaining user input (working with additional controls including message and input boxes, check boxes, option buttons, common

dialog controls, and menus)
  b. data types; use of constants and variables; calculations and
      built-in functions
  c. simple data validation and error handling
  d. string manipulation and formatting data for output
  e. syntax and logic errors; introduction to using debugging tools
3. Flow of control and programming logic design
  a. decision structures and logical comparisons
  b. loop structures
4. Program decompositions and structured programming techniques
  a. modules, subprograms, and subfunctions
  b. working with multiple forms and standard code modules
  c. scope of variables and constants
  d. arguments and parameter passing
5. Lists and Arrays
  a. introduction to the concepts of lists and simple arrays and their
      uses
  b. working with list and combo boxes
6. Introduction to disk file processing
  a. elementary storage concepts
  b. rudimentary file operations using sequential access disk files
7. Introduction to graphics
  a. simple images
  b. basic Drag and Drop operations

Assignment:

1. Design, write and debug computer programs in the Visual BASIC
    programming.
2. Read approximately 30 pages from the text book each week.
3. Formulate accurate and descriptive program documentation.
4. Convert errors in computer programs.
5. Take objective exams.

Methods of Evaluation/Basis of Grade:

Writing: Assessment tools that demonstrate writing skills
and/or require students to select, organize and explain ideas
in writing.

None, This is a degree applicable course but assessment tools based on writing are not included because problem solving assessments are more appropriate for this course.	Writing 0 - 0%

Problem Solving: Assessment tools, other than exams, that
demonstrate competence in computational or non-
computational problem solving skills.

Homework problems, Programming assignments	Problem solving 50 - 80%

Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

None

Skill Demonstrations 0 - 0%

Exams: All forms of formal testing, other than skill performance exams.

Multiple choice, True/false, Matching items, Completion, Design and code fragments

Exams 20 - 50%

Other: Includes any assessment tools that do not logically fit into the above categories.

None

Other Category 0 - 0%

Representative Textbooks and Materials:
"Programming in Visual BASIC, version 6.0, with CD," by Bradley & Millspaugh - McGraw-Hill October 2001