CS 19.11A Course Outline as of Fall 2015

CATALOG INFORMATION

Dept and Nbr: CS 19.11A   Title: INTRO VISUAL BASIC PROGR
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	4.00	17.5	Lecture Scheduled	70.00
Minimum	4.00	Lab Scheduled	0	6	Lab Scheduled	0
		Contact DHR	0		Contact DHR	0
		Contact Total	4.00		Contact Total	70.00
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 140.00   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 16A

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, and error handling.
This course is taught using the current version of Visual BASIC from Microsoft.

Prerequisites/Corequisites:

Recommended Preparation:
Eligibility for ENGL 100 or ESL 100

Limits on Enrollment:

Schedule of Classes Information:
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This course is taught using the current version of Visual BASIC from Microsoft. (Grade Only)
Prerequisites/Corequisites:
Recommended: Eligibility for ENGL 100 or ESL 100
Limits on Enrollment:
Transfer Credit:
Repeatability: Two Repeats if Grade was D, F, NC, or NP

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	**Area**	Effective:	Inactive:
CSU GE:	**Transfer Area**	Effective:	Inactive:
IGETC:	**Transfer Area**	Effective:	Inactive:
CSU Transfer:	Effective:	Inactive:	
UC Transfer:	Effective:	Inactive:	

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 to the programming environment
   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 with simple images

Assignment:

1. Design, write and debug computer programs in the Visual BASIC programming language.
2. Read approximately 30 - 50 pages from the textbook each week.
3. Formulate accurate and descriptive program documentation.
4. Detect and fix errors in computer programs.
5. Take 3-6 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.

Descriptive programming documentation	Writing 10 - 20%

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

Programming assignments	Problem solving 60 - 70%

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.

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

Exams 20 - 30%

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

None

Other Category 0 - 0%

Representative Textbooks and Materials:
Simply Visual Basic 3rd edition. Deitel & Deitel, Prentice Hall 2008