Curriculum proposal number 2003.112

Cover Sheet for Curriculum Action Request (CAR) and Course Outline

This is a routing procedure; the official signature section is on the CAR form.

Course alpha and number ***ICS 340 Introduction to Visual Basic*** Proposal type New Course

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Consulted with Alf Wolf, David Grooms, Sandra Swanson

X Written proposal reviewed by discipline representative to the Curriculum Committee	Date 4/13/2004
____ Consulted with Articulation Coordinator (for General Education Core courses only)	Date
X Written proposal discussed in unit	Date 4/16/2004
X Original CAR signed by Unit Chair	Date 4/26/2004
X Original proposal forwarded to Curriculum Committee (course outline may be an e-mail attachment or on disk)	Date 5/3/2004
X Passed by Curriculum Committee, CAR signed by Chair, Academic Senate Chair notified	Date 8/25/04
X Approved by Academic Senate, CAR signed by Chair	Date 9/10/2004
✓ Forwarded to and received by Chief Academic Officer	Date 29 Sept 04
✓ Reviewed and CAR signed by Chief Academic Officer	Date 13 Oct 04
✓ Forwarded to and received by Chancellor	Date 11/14/04
✓ Reviewed and CAR and Course Outline signed by Chancellor	Date 11/14/04
✓ Signed originals returned to Curriculum Chair	Date 20 Oct 04

Distribution/Information Posting/Follow-up

✓ Copy of signed original Course Outline sent to author for his/her files	Date
____ Course Outline published to Curriculum Committee web page	Date
____ Effective date of proposal posted on Curriculum Committee website	Date
✓ Banner input completed	Date
✓ Catalog/Addendum input completed ?	Date 14 Mar 05
____ E-mail notice of approval to entire college	Date
____ Copy of original & disc forwarded to Articulation Coordinator, if necessary	Date
____ Databases: Curriculum Review Dates [Excel] and Yearly Curriculum Actions [Access] updated ✓	Date
____ Other _____	Date
✓ Signed original placed in Chief Academic Officer's master curriculum files	Date

Revised Oct 2003/AC

ORIGINAL

Curriculum proposal number 2003.112

Curriculum Action Request (CAR) (Form 4-93) - Maui Community College

1. Author(s) Daniel Kruse
2. Authors' unit(s) Professional Technology
3. Date submitted to Curriculum Committee 03 May, 2004
4. a. General type of action? _X_course __program
   b. Specific type of action

Addition	Deletion	Modification	
_X_regular	__course	__number/alpha	__prerequisites
__experimental	__from program	__title	__corequisites
__other (specify)	__program	__credits	__program
_____	__other (specify)	__description	__other (specify)
	_____		_____

5. Reason for this curriculum action: New course for ABIT program
6. Existing course N/A

alpha number title credits

7. Proposed new/modified course

ICS 340 Introduction to Visual Basic 3

alpha number title credits

8. New course description or page number in catalog of present course description, if unchanged.

Introduces computer programming for non-computer science majors using the Visual Basic language. Includes algorithms and problem-solving, fundamental programming constructs, object-oriented design, event-driven programming, Graphical User Interface (GUI) principles, and components.

9. Prerequisite(s): *ICS 115 or BCIS162 with at least a C or consent*
10. Corequisite(s)
11. Recommended preparation
12. Is this course cross-listed? ___yes _X_no If yes, list course
13. Student contact hours per week

    lecture___hours lab___hours lecture/lab_3_hours other___hours, explain

14. Revise current MCC General Catalog page(s) **P. 110**
15. Course grading ___letter grade only ___credit/no credit _X_either _X_audit
16. Proposed semester and year of first offering? _Spring_semester _2005_year
17. Maximum enrollment__24___ Rationale, if applicable: Capacity of computer classroom
18. Special scheduling considerations? __yes _X_no If yes, explain:

19. Special fees required? __yes _X_no If yes, explain.

20. Will this request require special resources (personnel, supplies, etc.?) __yes _X_no

If yes, explain:

21. Is this course restricted to particular room type? _X_yes __no If yes, explain. Must be in classroom with appropriate hardware and software.

22. _X_Course fulfills requirement for _____ABIT_____ program/degree

__Course is an elective for _____ program/degree

__Course is elective for AA degree

23. This course __increases __decreases _X_makes no change in number of credit required for the program(s) affected by this action

24. Is this course taught at another UH campus? __yes _X_no

a. If yes, specify campus, course, alpha and number

b. If no, explain why this course is offered at MCC

Part of new ABIT curriculum

25. a. Course is articulated at

__UHCC __UH Manoa __UH Hilo __UH WO __Other/PCC

b. Course is appropriate for articulation at

__UHCC __UH Manoa __UH Hilo __UH WO __Other/PCC

c. Course is not appropriate for articulation at

__UHCC __UH Manoa __UH Hilo __UH WO __Other/PCC

d. Course articulation information is attached? __yes _X_no

Proposed by

Daniel Kruse 03 May, 2004

Author or Program Coordinator/Date

Approved by

9/10/04

Academic Senate Chair/Date

Requested by

Division or Unit Chair/Date

10/13/04

Chief Academic Officer/Date

Recommended by

Ann Coopersmith 25 Aug 04

Curriculum Chair/Date

10/14/04

Chancellor/Date

Revised Sept 2003/AC

Maui Community College
Course Outline

ORIGINAL

1.	Alpha and Number:	ICS 340
	Course Title	Introduction to Visual Basic
	Credits	Three (3)
	Date of Outline	03 May, 2004
2.	Course Description	Introduces computer programming for non-computer science majors using the Visual Basic language. Includes algorithms and problem-solving, fundamental programming constructs, object-oriented design, event-driven programming, Graphical User Interface (GUI) principles, and components.
3.	Contact Hours/Type	Three (3): lecture, laboratory
4.	Prerequisites	ICS 115 or BCIS 162, or consent
	Corequisites	
	Recommended Preparation	

Approved by _____ Date 10/14/04

5. General Course Objectives

Be familiar with the concepts of computer programming and problem solving to the point of understanding how to develop a method for solving a problem and implement it so that it runs effectively and efficiently.

This is part of the required curriculum for the ABIT program.

6. Student Learning Outcomes
For assessment purposes, these are linked to #7. Recommended Course Content.

On completion of this course students will be able to

a) explain the importance of programming to the development of information systems;

b) describe the step-by-step nature of designing, writing, and executing a computer program;

c) demonstrate how to use creative structured programming as an effective vehicle for problem solving;

d) develop critical thinking skills in determining what types of problems can be solved effectively with what types of computer methods, why it can be done, and how it can be done;

e) identify new technology and its appropriateness for solving specific, practical problems;

f) discuss the importance of structured programming and top down design to good program design;

g) list the types of programming structures used to write programs;

h) distinguish between procedural and object-oriented event-driven (OOED) programs;

i) develop the logic to solve a problem and then write and run programs using Visual Basic to implement that logic;

j) use the Visual Basic GUI interface in developing practical implementations;

k) develop programs in Visual Basic to solve business problems, specifically,

1. using controls, forms, code, and projects to write and run programs using Visual Basic;
2. using assignment statements, arithmetic, decisions, loop, arrays, functions and procedures, and menus to create the necessary programming statements; and
3. using database controls to link a Visual Basic program to a database and manipulate it.

7. Recommended Course Content and Approximate Time Spent on Each Topic
Linked to #6. Student Learning Outcomes.

2-4 Weeks:	Introduction (a,b,c,d,e)
1-4 Weeks:	Design Tools (b,c,f,g,k)
2-5 Weeks:	Beginning Programming (c,f,g,i,j,k)
2-5 Weeks	Event Driven Programming (d,e,g,h.i.j.k)
2-5 Weeks	GUI Development (d,e,g,i,j,k)

8. Text and Materials, Reference Materials, Auxiliary Materials and Content
An appropriate text(s) and materials will be chosen at the time the course is to be offered from those currently available in the field. Examples include:

Texts:
Learning to Program with Visual Basic 2nd Ed.
McKeown, Patrick G. and Piercy, Craig A.,

Simple Program Design, 3rd. Edition
Robertson, Lesley Anne.

Materials: Text(s) may be supplemented with:
Articles and/or handouts prepared by the instructor
Appropriate films, videos or internet sites
Television programs
Guest speakers
Other instructional aids

9. Recommended Course Requirements and Evaluation

Examinations (written and/or oral)	25-50%
Programming assignments	30-50%
In-class exercises	0-30%
Homework	0-30%
Quizzes	0-30%
Projects/research	0-40%
Attendance and/or class participation	0-10%

10. Methods of Instruction
Lecture (PowerPoint or similar)
Problem solving and design exercises
Hands-on laboratory exercises
Group or individual projects
Class discussions or guest lectures
Audio, visual or presentations involving the internet
Student class presentations
Field trips
Other contemporary learning techniques (e.g., Service Learning, Co-op)
School-to-Work, self-paced, etc.)

Assessment of Program Student Learning Outcomes - ABIT 2004
Standard 1: Written Communication

		ICS 340
1.1 Use writing to discover and articulate ideas		0
1.2 Identify and analyze the audience and purpose for any intended communication		2
1.3 Choose language, style and organization appropriate to particular purposes and audiences		1
1.4 Gather information and document sources appropriately		0
1.5 Express a main idea as a thesis, hypothesis, and other appropriate content		0
1.6 Develop a main idea clearly and concisely with appropriate content		1
1.7 Demonstrate mastery of the conventions of writing, including grammar, spelling, and mechanics		0
1.8 Demonstrate proficiency in revision and editing		1
1.9 Develop a personal voice in written communication		0

Assessment of Program Student Learning Outcomes- ABIT 2004
Standard 2: Quantitative Reasoning

		ICS 340
2.1 Apply numeric, graphic and symbolic skills and other forms of quantitative reasoning, accurately and appropriately		2
2.2 Demonstrate mastery of mathematical concepts, skills, and applications, using technology when appropriate		2
2.3 Communicate clearly and concisely the methods and results of quantitative problem solving		1
2.4 Formulate and test hypotheses using numerical experimentation		1
2.5 Define quantitative issues and problems, gather relevant information, analyze that information, and present results		1
2.6 Assess the validity of statistical conclusions		0

Assessment of Program Student Learning Outcomes - ABIT 2004
Standard 3: Information Retrieval and Technology

		ICS 340
3.1 Use print and electronic information technology ethically and responsibly		1
3.2 Demonstrate knowledge of basic vocabulary, concepts, and operations of information technology and retrieval		2
3.3 Recognize, identify, and define an information need		3
3.4 Access and retrieve information through print and electronic media, evaluating the accuracy and authenticity of that information		1
3.5 Create, manage, organize, and communicate information through electronic media		3
3.6 Recognize changing technologies and make informed choices about their appropriateness and use		3

Assessment of Program Student Learning Outcomes - ABIT 2004
Standard 4: Oral Communication

		ICS 340
4.1 Identify and analyze the audience and purpose of any intended communication.		1
4.2 Gather, evaluate, select, and organize information for the communication.		1
4.3 Use language, techniques, and strategies appropriate to the audience and occasion.		1
4.4 Speak clearly and confidently, using the voice, volume, tone, and articulation appropriate to the audience and occasion		0
4.5 Summarize, analyze, and evaluate oral communications and ask coherent questions as needed.		0
4.6 Use competent oral expression to initiate and sustain discussion.		1

Assessment of Program Student Learning Outcomes - ABIT 2004
Standard 5: Critical Thinking

		ICS 340
5.1 Identify and state problems, issues, arguments, and questions contained in a body of information.		1
5.2 Identify and analyze assumptions and underlying points of view relating to an issue or problem.		1
5.3 Formulate research questions that require descriptive and explanatory analyses.		1
5.4 Recognize and understand multiple modes of inquiry, including investigative methods based on observation and analysis.		1
5.5 Evaluate a problem, distinguishing between relevant and irrelevant facts, opinions, assumptions, issues, values, and biases through the use of appropriate evidence.		2
5.6 Apply problem-solving techniques and skills, including the rules of logic and logical sequence.		3