College of San Mateo
Course Outline

☐ New Course
☐ Update/No change
☒ Course Revision (Minor)
☐ Course Revision (Major)

Date: January 25, 2008

Department: CIS **Number:** 125
Course Title: Visual Basic I **Units:** 4.0
Hours/Week: **Lecture:** 3 **Lab:** 3 **By Arrangement:** 1

Length of Course
- ☒ Semester-long
- ☐ Short course (Number of weeks___)
- ☐ Open entry/Open exit

Grading
- ☐ Letter
- ☐ Credit/No Credit
- ☒ Grade Option (letter or Credit/No Credit)

1. **Prerequisite** (Attach Enrollment Limitation Validation Form.)

MATH 110 or equivalent

2. **Corequisite** (Attach Enrollment Limitation Validation Form.)

None

3. **Recommended Preparation** (Attach Enrollment Validation Form.)

Eligibility for ENGL 848

4. **Catalog Description** (Include prerequisites/corequisites/recommended preparation.)

CIS 125 Visual Basic I (4 units)
(Credit/No Credit or letter grade option.) Three lecture and three lab hours plus one hour by arrangement per week. Prerequisite: MATH 110 or equivalent. Recommended Preparation: eligibility for ENGL 848. Introduction to computer programming and Visual Basic. Includes computer hardware and operating systems concepts necessary for computer program coding, compilation, and execution, algorithms and problem-solving techniques using structured methods and programming in Visual Basic .NET; program testing; documentation issues and techniques; and professional ethics. A materials fee in the amount shown in the Schedule of Classes is payable upon registration. (CSU/UC)

5. **Class Schedule Description** (Include prerequisites/corequisites/recommended preparation.)

CIS 125 Visual Basic I (4 units) Introduction to computer programming and Visual Basic. Includes computer hardware and operating systems concepts necessary for computer program coding, compilation, and execution, algorithms and problem-solving techniques using structured methods and programming in Visual Basic .NET; program testing; documentation issues and techniques; and professional ethics. A materials fee in the amount shown in the Schedule of Classes is payable upon registration. Three lecture and three lab hours plus one hour by arrangement per week. Prerequisite: MATH 110 or equivalent. Recommended Preparation: eligibility for ENGL 848. Credit/No Credit or letter grade option. (CSU/UC)

6. **Student Learning Outcomes** (Identify 1-6 expected learner outcomes using active verbs.)

Upon successful completion of the course, the student will be able to:

1. Understand basic computer hardware and operating system configurations and their relationship to writing programs;
2. Understand a procedural programming language syntax and structure;
3. Define and use procedures and functions to implement algorithms;
4. Analyze structured problems and design computer solutions;
5. Design a user interface for a software program using the Visual Basic .NET interface tools.
6. Develop and utilize program testing data and techniques; and
7. Construct program solutions that are reliable, robust, and maintainable.

7. **Course Objectives** (Identify specific teaching objectives detailing course content and activities. *For some courses, the course objectives will be the same as the student learning outcomes. If this is the case, please simply indicate this in this section).*

Same as Student Learning Outcomes

8. **Course Content** (Brief but complete topical outline of the course that includes major subject areas [1-2 pages]. Should reflect all course objectives listed above. In addition, you may attach a sample course syllabus with a timeline.)

See attached topical outline

9. **Representative Instructional Methods** (Describe instructor-initiated teaching strategies that will assist students in meeting course objectives. Include examples of out-of-class assignments, required reading and writing assignments, and methods for teaching critical thinking skills.)
If hours by arrangement are required by this course, indicate the additional instructional activity which will be provided during this time.

- Lecture will be used to introduce new topics;
- Teacher will model problem-solving techniques;
- Class will solve a problem together, each person contributing a potential "next step";
- Students will participate in short in-class projects (in teacher-organized small groups) to ensure that students experiment with the new topics in realistic problem settings;
- Teacher will invite questions AND ANSWERS from students, generating discussion about areas of misunderstanding;
- Teacher will create and manage an Internet conference for discussion of course topics; and
- Students will work in small groups to solve programming assignments.

10. **Representative Methods of Evaluation** (Describe measurement of student progress toward course objectives. Courses with required writing component and/or problem-solving emphasis must reflect critical thinking component. If skills class, then applied skills.)

Bi-weekly quizzes to provide feedback to students and teacher on objectives 1-3; (Short answer--from textbook material)

Assessment of student contributions during class discussion and project time to assess objectives 1-3;
Individual programming assignments to assess objectives 4-7;
Midterm and Final exams to assess objectives 1-7 (Short answer (textbook material), general problem solving (similar to in-class work), short program segments (similar to programming assignments).

11. Representative Text Materials (With few exceptions, texts need to be current. Include publication dates.)

Schneider, David, *Introduction to Programming Using Visual Basic 2005,* Prentice Hall, 2006
Zak, Diane, *Programming* with *Microsoft Visual Basic 2005,* Course Technology, 2006
Zak, Diane, *Microsoft Visual Basic .NET: Reloaded,* Course Technology, 2006

Prepared by: _____
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Submission Date: _____