COURSE OUTLINE OF RECORD

Number: CS G178

**TITLE:** Visual C# .Net

**ORIGINATOR:** Instructor Placeholder AAA  
**EFF TERM:** Spring 2008  
**DATE OF OUTLINE/REVIEW:** 11-16-2006  
**TOP NO:** 0707.10  
**CROSS LISTED COURSE:**

**SEMESTER UNITS:** 4.0  
**HRS LEC:** 54.0  
**HRS LAB:** 54.0  
**HRS OTHER:** 0.0  
**CONTACT HRS TOTAL:** 108.0  
**STUDY NON-CONTACT HRS RECOMMENDED:** 108.0

**CATALOG DESCRIPTION:**
This course will cover software development in the Microsoft .NET framework. Visual C# .NET will be used as the development tool to discuss and practice Windows-based applications and Web-based applications. This course prepares students for Microsoft.NET Framework Web-Based Development Certificate and Windows Client Development Certificate. ADVISORY: Computer Science G153 or G175

**JUSTIFICATION FOR COURSE:**

**PREREQUISITES:**

**COREQUISITES:**

**ADVISORIES:**
- CS G153: Java Programming, Introduction
- CS G175: C++ Programming

**ASSIGNED DISCIPLINES:**
- Computer science

**MATERIAL FEE:** Yes [ ] No [X] Amount: $0.00

**CREDIT STATUS:** Noncredit [ ] Credit - Degree Applicable [X] Credit - Not Degree Applicable [ ]

**GRADING POLICY:** Pass/No Pass [X] Standard Letter [X] Not Graded [ ] Satisfactory Progress [ ]

**OPEN ENTRY/OPEN EXIT:** Yes [ ] No [X]

**TRANSFER STATUS:**
- CSU Transferable[X]
- UC/CSU Transferable[ ]
- Not Transferable[ ]

**BASIC SKILLS STATUS:** Yes [ ] No [X] LEVELS BELOW TRANSFER: Not Applicable

**CALIFORNIA CLASSIFICATION CODES:** Y - Not Applicable

**NON CREDIT COURSE CATEGORY:** Y - Not applicable, Credit Course

**OCCUPATIONAL (SAM) CODE:** C

**REPEATABLE ACCORDING TO STATE GUIDELINES:** No [X] Yes [ ] NUMBER REPEATS:

**REQUIRED FOR DEGREE OR CERTIFICATE:** No [ ] Yes [X]  
- Software Development(Associate in Arts)  
- Software Development(Certificate of Achievement)  
- Video Game Development(Associate in Arts)  
- Video Game Development(Certificate of Achievement)

**GE AND TRANSFER REQUIREMENTS MET:**

**COURSE LEVEL STUDENT LEARNING OUTCOME(S) Supported by this course:**
1. understand the basic principles of the event-driven and graphical programming model.
2. explain the mechanisms for proper class hierarchy and component design in .Net.

**COURSE OBJECTIVES:**

1. gain theoretical and experiential understanding of the following subjects: 
   - Basics of Windows programming
   - Program flow
   - Object Oriented Programming (OOP)
   - Exception Handling
   - Multithreading
   - Microsoft .NET framework
   - GUI development
   - Working with graphics
   - Common Language Runtime (CLR)
   - Common Language Specification (CLS)
   - Common Type System (CTS)
   - .NET Assemblies
   - Intermediate Language (CIL)
   - Using .NET Collections
   - Working with graphics
   - Common Language Runtime (CLR)
   - Common Language Specification (CLS)
   - Common Type System (CTS)
   - .NET Assemblies
   - Microsoft .NET framework

**COURSE CONTENT:**

**LECTURE CONTENT:**

- Basics of Windows Programming
- Build objects
- Discuss structured programming
- Perform exception handling
- Build applications with multithreading
- Discuss Microsoft .NET framework
- Build applications with GUI
- Build graphical user interface (GUI) functionality
- Access databases with ADO .NET and SQL
- Modify application to run on the WWW
- Rewrite sections of the program by Refactoring
- Rewrite a component as a Web Service with XML data exchange
- Inherit from objects written in Visual Basic .NET

**LABORATORY CONTENT:**

- Basics of Windows Programming
- Build objects
- Discuss structured programming
- Perform exception handling
- Build applications with multithreading
- Discuss Microsoft .NET framework
- Build applications with GUI
- Build graphical user interface (GUI) functionality
- Access databases with ADO .NET and SQL
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- Inherit from objects written in Visual Basic .NET

**METHODS OF INSTRUCTION:**

A. Lecture:
B. Lab:
C. Independent Study:

**INSTRUCTIONAL TECHNIQUES:**
COURSE ASSIGNMENTS:

Reading Assignments
Students will be assigned multiple chapters from the required books. External material will be made known to students to encourage further studies into specific topics. Various current (up-to-date) handouts will be made available to students on component programming, Visual tools; third-party controls; and latest development strategies.

Out-of-class Assignments
An optional library research paper will promote further study and research in current programming practices or other related topics selected by the student and approved by the instructor.

Writing Assignments
Students will be required to complete software development projects presented to them in the form of business automation problems requiring solution implementation. Students will be required to write documentation on their projects.

METHODS OF STUDENT EVALUATION:

Midterm Exam
Final Exam
Written Assignments
Essay Examinations
Objective Examinations
Report
Projects (ind/group)
Problem Solving Exercises
Skills Demonstration

Demonstration of Critical Thinking:
Students will be demonstrating their laboratory projects. Optional research papers and classroom presentations will further demonstrate their ability in critical thinking and problem solving.

Required Writing, Problem Solving, Skills Demonstration:
Students will be required to complete software development projects presented to them in the form of business automation problems requiring solution implementation. Students will be required to write documentation on their projects.

TEXTS, READINGS, AND RESOURCES:

TextBooks:

Other:
1. A syllabus, and multiple reference material related to the latest .NET development principles will be distributed by the instructor.

LIBRARY:

Adequate library resources include:

Comments:

Attachments:

Attached Files