CSCE 547: WINDOWS PROGRAMMING

Catalog Description:
547 -- Windows Programming. (3) (Prereq: CSCE 245) Object-oriented methods and tools for application programming with graphically interactive operating systems.

Prerequisite(s) By Topic:
Programming and data structures
Object Oriented Programming

Textbook(s) and Other Required Material:
Jeff Richter, *Applied Microsoft .NET Framework Programming*, Microsoft Press, 2002.
Charles Petzold, *Programming Microsoft Windows with C#*, Microsoft Press, 2002.
Jeff Prosise, *Programming Microsoft .NET*, Microsoft Press, 2002.
Don Box and Chris Sells, *Essential .NET Volume 1*, Addison Wesley, Boston, MA, 2003.

Computing Platform:
Windows and in particular the .NET environment.

Course Objectives: {Assessment Methods Shown in Braces}
1. Use design and development methods and tools for distributed, component-based computer applications based on .NET. {projects}
2. Use Web services and client applications, with a focus on case studies and applications in engineering. {projects}

Topics Covered:
1. Fundamental features of graphically interactive operating systems. (9)
2. Review of object-oriented methods. (3)
3. Developing Enterprise Applications: What have we done to deserve this? (3)
4. .NET versus J2EE: Two technologies separated by their similarities and attracted by their differences. (6)
5. Focus on .NET spiced with C# (9)
6. .NET soup letter: FCL, CLI, CIL, SDK, CTS, CLR . . . (6)
7. Case studies in engineering. (6)

Laboratory Projects:
Two very extensive projects.

Difference between Undergraduate and Graduate Work:
Graduate students complete more complicated projects and also give a class presentation on research related to their project.

Syllabus Flexibility: High. The instructor approves the choice of textbook and syllabus.

Relationship of Course to Program Outcomes:
The contribution of each course objective to meeting the program outcomes is indicated with the scale:
3 = major contributor, 2 = moderate contributor, 1 = minor contributor. Blank if not related.

Course Objectives	Program Outcomes										
	1. Logic & Math	2. Computing Fundamentals	3. Apply Computing Principles	4. Work on teams	5. Communicate Effectively	6. Liberal arts & Soc. Sciences	7. Basic Science and Lab Procedures	8. Learn New Tools & Processes	9. Employed upon Graduation	10. Application Area	11. Electronics and Digital Sys Design
1. Use design and development tools for distributed applications			3					3	2		
2. Use Web services and client applications			3					3	2		

Estimated Computing Category Content (Semester hours):

Area	Core	Advanced	Area	Core	Advanced
Algorithms			Data Structures		
Software Design		2	Programming Languages		
Computer Architecture		1			

Estimated Information Systems Category Content (Semester hours):

Area	Core	Advanced	Area	Core	Advanced
Hardware and Software		1	Networking and Telecommunications		
Modern Programming Language			Analysis and Design		2
Data Management			Role of IS in an Organization		
Quantitative Analysis			Information Systems Environment		

Oral and Written Communication: None.

Social and Ethical Issues: None.

Theoretical Content: None.

Analysis and Design:
Extensive analysis and design.

Collaborative Work: None

Course Coordinator: Juan Vargas

Class/Laboratory Schedule:
Lecture: 3 periods of 50 minutes or 2 periods of 75 minutes per week

Modification and Approval History
New description June 2005 by Manton Matthews and Caroline Eastman.