CS 55.12 Course Outline as of Spring 2011

CATALOG INFORMATION

Dept and Nbr: CS 55.12 Title: INTRO TO ASP.NET
Full Title: Introduction to Active Server Pages - ASP.NET
Last Reviewed: 9/27/2010

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	3.00	Lecture Scheduled	3.00	17.5	Lecture Scheduled	52.50
Minimum	3.00	Lab Scheduled	0	4	Lab Scheduled	0
		Contact DHR	0		Contact DHR	0
		Contact Total	3.00		Contact Total	52.50
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 105.00 Total Student Learning Hours: 157.50

Title 5 Category:	AA Degree Applicable
Grading:	Grade or P/NP
Repeatability:	00 - Two Repeats if Grade was D, F, NC, or NP
Also Listed As:	
Formerly:	CIS 54.36

Catalog Description:
For students wishing to learn the server-side scripting language ASP.NET (Active Server Pages) and integrate a relational database into a Web site. A project will be created using a relational database, password protection, session processing, and other ASP.NET constructs.

Prerequisites/Corequisites:
Course Completion of CS 10 or CS 19.11A or CS 19.21A

Recommended Preparation:
Course Completion of CS 50.11B (or CIS 58.51B) AND Eligibility for ENGL 100 or ESL 100

Limits on Enrollment:

Schedule of Classes Information:
Description: For students wishing to learn the server-side scripting language ASP.NET (Active Server Pages) and integrate a relational database into a Web site. A project will be created using a relational database, password protection, session processing, and other ASP.NET constructs. (Grade or P/NP)
Prerequisites/Corequisites: Course Completion of CS 10 or CS 19.11A or CS 19.21A
Recommended: Course Completion of CS 50.11B (or CIS 58.51B) AND Eligibility for ENGL

100 or ESL 100
Limits on Enrollment:
Transfer Credit: CSU;
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:	Transferable	Effective:	Fall 2004	Inactive:	Fall 2015
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. Employ ASP.NET to create a web site that utilizes dynamic web pages including:
   a. Password protection
   b. A connection to a back-end relational database with related tables via an OLE (object linking and embedding) DB (database) connection
   c. Input forms with validated fields
   d. ASP.NET scripts to process form data
   e. Structured Query Language (SQL) queries using inserts, deletes, updates, selects, stored procedures and multi-table join conditions
   f. Session processing
   h. Full user interface
2. Analyze the site to ensure that it retains its functionality and aesthetics on multiple platforms and multiple browsers
3. Optimize the design of the database for speed.
4. Identify and use ASP.NET tutorial sites, newsgroups, and user forums available on the Web as resources.

Topics and Scope:

1. Building ASP.NET pages
   a. ASP.NET framework
   b. Namespaces
   c. Web.Config file
2. Review of basic programming structures
   a. Variables, data types
   b. Assignment, comparisons
   c. Arithmetic calculations

   d. Conversion functions
   e. Naming conventions
   f. Scope
   g. Arrays
   h. Control structures
      1) Branching
      2) Looping
      3) Conditional statements
3. ASP.NET objects
   a. Properties
   b. Events
   c. Methods
   d. Sessions
   e. Cookies
   f. Redirection
4. Forms
   a. Introduction to web forms
   b. Server controls
   c. Server control events
   d. Posting and postback
   e. Saving state information
5. Web forms
   a. User controls
   b. Custom controls
   c. Properties and state
   d. Viewstate
6. Validating ASP.NET pages
   a. Custom validation
   b. Error messages
7. Debugging in ASP
   a. Web.Config file
   b. Error handlers
8. Structured Query Language (SQL)
   a. SQL Insert
   b. SQL Select
   c. SQL Delete
   d. SQL Update
   e. Multi-table joins
9. Databases with ASP.NET
   a. ADO.NET (ADO = Active Data Objects)
   b. Datasets
   c. Filling datasets
   d. Data binding
   e. Repeater data control
   f. Datalist control
   g. Datagrid control
   h. Editing in the datagrid
10. ADO.NET
   a. ADO.NET and XML (eXtensible Markup Language)
   b. Properties and methods of datasets
   c. Viewing and modifying data
   d. Data readers

11. Introduction to XML
   a. The XML data model
   b. XML schemas
   c. Reading XML
   d. Writing XML
   e. Modifying XML
12. Advanced database techniques
   a. Parameters
   b. Stored procedures
   c. Transactions
   d. SQL scripts
13. Reading and writing files on the server
14. Separating code from content

Assignment:

1. Create a Web site which contains the following elements:
   a. Password protection via database lookup
   b. A connection to a back-end relational database with related tables via an OLE-DB connection
   c. Input forms with validated fields
   d. ASP.NET scripts to process the form data
   e. Extract information from the database with SQL queries using inserts, selects, deletes, and updates
   f. Process sessions to track users
   g. Use ASP.NET components
2. Research ASP.NET resource sites and newsgroups for assistance with problems, and to exchange ideas
3. Present Web site to the class
4. Two to four exams
5. Read approximately 25-35 pages per week in the textbook

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.

None, This is a degree applicable course but assessment tools based on writing are not included because problem solving assessments are more appropriate for this course.	Writing 0 - 0%

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

Web site creation and presentation	Problem solving 40 - 60%

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.

Multiple choice, completion, correcting syntax, analyzing programs and commands	Exams 40 - 60%

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

Attendance and participation	Other Category 0 - 10%

Representative Textbooks and Materials:
ASP.NET 3.5 Unleashed, by Stephen Walther. Published by SAMS, 2008.