CS 55.13 Course Outline as of Fall 2018

CATALOG INFORMATION

Dept and Nbr: CS 55.13   Title: SERVER-SIDE WEB DEV
Full Title: Server-Side Web Development
Last Reviewed: 10/24/2022

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	6	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 58.41

Catalog Description:
This is an introduction to server-side Web development using open source technologies as well as a comprehensive course in the server-side scripting languages such as PHP hypertext preprocessor scripting language. The course covers writing server-side scripts for the Web, such as PHP, procedural and object-oriented programming, Web form management, an introduction to SQL statements and databases. Advanced topics are covered including dynamic generation of content using databases, sessions, cookies, Web services, e-commerce, and authentication. Previous programming experience recommended.

Prerequisites/Corequisites:
Course Completion of CS 50A

Recommended Preparation:
Eligibility for ENGL 100 or ESL 100; AND Completion of CS 10A

Limits on Enrollment:

Schedule of Classes Information:
Description: This is an introduction to server-side Web development using open source technologies as well as a comprehensive course in the server-side scripting languages such as

PHP hypertext preprocessor scripting language. The course covers writing server-side scripts for the Web, such as PHP, procedural and object-oriented programming, Web form management, an introduction to SQL statements and databases. Advanced topics are covered including dynamic generation of content using databases, sessions, cookies, Web services, e-commerce, and authentication. Previous programming experience recommended. (Grade or P/NP)
Prerequisites/Corequisites: Course Completion of CS 50A
Recommended: Eligibility for ENGL 100 or ESL 100; AND Completion of CS 10A
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 2002	Inactive:	
UC Transfer:		Effective:	Inactive:	

CID:

Certificate/Major Applicable:
Both Certificate and Major Applicable

COURSE CONTENT

Student Learning Outcomes:
At the conclusion of this course, the student should be able to:
1. Design server-side solutions to support validation, authentication, business logic, and security.
2. Develop server-side scripts employing SQL databases to create robust data-driven Web applications.

Objectives:
Upon completion of the course, students will be able to:
1. Develop server-side scripts for publishing on the Web.
2. Employ control structures, functions, arrays and hashes to create robust applications.
3. Design rigorous code for validation and authentication with attention to security and performance.
4. Write SQL commands and use a database to develop data-driven Web applications.
5. Create an advanced project using server-side scripts and databases.

Topics and Scope:

I. Introduction
   A. History of PHP
   B. Limitations of Server-Side Programming
   C. Dynamic Web Pages
   D. PHP and HTML

IX. Creating Dynamic Content with Server-Side Script and SQL
   A. Connecting to SQL
   B. Extracting Data Using server-side script
   C. Populating Form Menus Using Data from SQL
   D. Putting Returned Records into a Table
   E. Authentication with server-side script
       1. Using Sessions
       2. Using HTTP Header Authentication
X. Advanced Topics
   A. Web Services
   B. Authentication
   C. E-Commerce
   D. Other Server-Side Languages

Assignment:

1. Read approximately 25-30 pages a week from course textbook and/or instructor-provided reading materials, accompanied by self-test questions and running code examples
2. Create and complete programming solutions (12 - 16)
3. Regular participation in online discussion forums (6 - 14)
4. Define and create a final Web application project that utilizes client- and server-side development to output dynamic content and process client input
5. Quizzes (2 - 4), midterm, and final exam

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.

Final project proposal, discussion posts	Writing 10 - 20%

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

Programming solutions	Problem solving 10 - 40%

Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Final Application	Skill Demonstrations 20 - 50%

Exams: All forms of formal testing, other than skill performance exams.

Quizzes, midterm, and final exam	Exams 10 - 20%

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:

PHP and MySQL for Dynamic Web Sites: Visual QuickPro Guide. 5th ed. Ullman, Larry. Peachpit Press. 2017

PHP and MySQL Web Development. 5th ed. Welling, Luke and Thompson. Laura. Addison-Wesley Professional. 2016

Murach's PHP & MySQL. 2nd ed. Murach, Joel and Harris, Ray. Murach & Associates. 2014