Cerro Coso College

Course Outline of Record Report

10/14/2021

DMAC213 : Web Development with PHP and MySQL

General Information

Author:	• Suzanne Ama • Stallings, Michelle • Taton, Vickie
Course Code (CB01) :	DMAC213
Course Title (CB02) :	Web Development with PHP and MySQL
Department:	Business Information Technolog
Proposal Start:	Spring 2022
TOP Code (CB03) :	(0614.30) Website Design and Development
SAM Code (CB09) :	Clearly Occupational
Distance Education Approved:	Yes
Course Control Number (CB00) :	CCC000462006
Curriculum Committee Approval Date:	11/18/2016
Board of Trustees Approval Date:	03/09/2017
External Review Approval Date:	06/16/2011
Course Description:	This course provides students with the skills to create dynamic web pages with PHP Hypertext Preprocessor (PHP) and Structured Query Language (MySQL). Practical applications of PHP include web form data processing and work with MySQL databases using sessions. Students must have existing proficiency in Hypertext Markup Language (HTML) and Cascading Style Sheets (CSS) and have an understanding of basic programming concepts to be successful in this class.
Submission Type:	New Course Materials Mandatory Revision Update for Program Review. I think this course was assessed in Fall 2019, but I'm not certain because I don't have access to other instructors' assessments. This course will definitely be assessed again in Fall 2021. Assessments are not driving this revision.
Author:	No value

Faculty Minimum Qualifications

Master Discipline Preferred:	• Computer Science
Alternate Master Discipline Preferred:	No value
Bachelors or Associates Discipline Preferred:	• Computer Information Systems (Computer network installation, microcomputer technology, computer applications) • Multimedia
Additional Bachelors or Associates Discipline Preferred:	No value

Course Development Options

Basic Skills Status (CB08)

Course is not a basic skills course.

Course Special Class Status (CB13)

Course is not a special class.

Grade Options

- Letter Grade Methods
- Pass/No Pass

☐ Allow Students to Gain Credit by Exam/Challenge

Allowed Number of Retakes

0

Course Prior To College Level (CB21)

Not applicable.

Rationale For Credit By Exam/Challenge

No value

Retake Policy Description

Non-Repeatable Credit

☑ Allow Students To Audit Course

Course Support Course Status (CB26)

Course is not a support course

Associated Programs

☑ Course is part of a program (CB24)

Associated Program	Award Type	Active
CC Web Professional	Certificate of Achievement	Summer 2018
CC Web Professional	A.S. Degree Major	Summer 2018
Web Professional Associate of Science (In Development)	A.S. Degree Major	Fall 2022
Web Professional Certificate of Achievement (In Development)	Certificate of Achievement	Fall 2022

Transferability & Gen. Ed. Options

Course General Education Status (CB25)

Y

Transferability

Transferable to CSU only

Transferability Status

Approved

Units and Hours

Summary

Minimum Credit Units (CB07)	3
Maximum Credit Units (CB06)	3
Total Course In-Class (Contact) Hours	90
Total Course Out-of-Class Hours	72
Total Student Learning Hours	162
Faculty Load	0

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non Credit Category (CB22)

Credit Course.

Non-Credit Characteristic

No Value

Course Classification Status (CB11)

Credit Course.

☐ Variable Credit Course

Funding Agency Category (CB23)

Not Applicable.

☐ Cooperative Work Experience Education Status (CB10)

Weekly Student Hours

	In Class	Out of Classs
Lecture Hours	2	4
Laboratory Hours	3	0
Activity Hours	0	0

Course Student Hours

Course Duration (Weeks)	18
Hours per unit divisor	54
Course In-Class (Contact) Hours	
Lecture	36
Laboratory	54
Activity	0
Total	90
Course Out-of-Class Hours	
Lecture	72
Laboratory	0
Activity	0
Total	72

Time Commitment Notes for Students

No value

Faculty Load

Extra Duties: 0

Faculty Load: 0

Units and Hours - Weekly Specialty Hours

Activity Name	Type	In Class	Out of Class
No Value	No Value	No Value	No Value

Pre-requisites, Co-requisites, Anti-requisites and Advisories

Advisory

DMAC211 - Web Scripting with JavaScript

In DMA C213, students are expected to build upon the fundamentals of universal programming concepts. DMA C211 provides this foundation through instruction in the use of the variables, expressions, operators, functions, arrays, and control structures.

Entrance Skills

Entrance Skills	Description
No value	No value

Limitations on Enrollment

Limitations on Enrollment	Description
No value	No value

Specifications

Methods of Instruction

Methods of Instruction	Audiovisual
Rationale	**Video Instruction** Example: Students watch LinkedIn Learning video on creating a new mySQL database, following along with provided exercise files.

Methods of Instruction	Outside reading
Rationale	**Textbook Reading** Example: Students read assigned chapter on building and processing forms with PHP.
Methods of Instruction	Project-based learning
Rationale	**Class Project** Example: Students incrementally build upon a class project throughout the semester.
Methods of Instruction	Lecture
Rationale	**Written Lecture** Example: Instructor provides a written lecture on the week's topics, such as validating data with PHP.
Methods of Instruction	Instruction through examination or quizzing
Rationale	**Formative quizzes** Example: Low point value quizzes on weekly content allow for students to regulate their learning and self-correct.
Methods of Instruction	Discussion
Rationale	**Discussion forums** Example: Students and instructor provide input on students' incremental revisions to class project.

Assignments

A. Textbook readings Example: Students read chapter on creating, editing, and manipulating database tables.
B. PHP/MySQL assignments Example: Students create a database that will populate a Web page's content.
C. Group Project Example: Students work in groups to create several pages that extend the site's capabilities through PHP/MySQL.

Methods of Evaluation	Rationale
Homework	PHP/MySQL assignments Example: Students create a database that will populate a web page’s content.
Participation	Discussion assignments Example: Students provide feedback to each other about weekly assignments.
Project	Class Project Example: Students incrementally build upon a class project throughout the semester.
Tests	**Formative quizzes** Example: Low point value quizzes on weekly content allow for students to regulate their learning and self-correct.
Distance Education Description: how outcomes are evaluated	Students complete assignments and projects in Adobe Illustrator, InDesign, and Acrobat, and they submit assignments and projects as attachments in Canvas discussion forums where the instructor and peers provide feedback. The assignments are one week in duration, and the projects are two weeks in duration. Instructor formative feedback is provided in the discussions to allow for refinement of the final artifact. A component of evaluation is weekly participation in the discussions. Rubrics are provided for all assignments and projects. A separate rubric is also created for SLO assessment. The activities of grading and assessing are distinct. The evaluation criteria and rigor is identical, regardless of delivery mode.

Equipment

No Value

Textbooks

Author	Title	Publisher	Date	ISBN
Duckett, J.	PHP & MySQL: Server-side Web Development 1st Edition	Wiley	2021	978-1119149224

Other Instructional Materials

No Value

Materials Fee

No

Learning Outcomes and Objectives

Course Objectives

No value

CSLOs

Use the basic syntax of the PHP language to create PHP programs. Expected SLO Performance: 0.75

Business Information Technolog Web Professional Certificate of Achievement	3. Use valid markup, cascading style sheets, semantic encoding, accessibility compliance, and error-free scripting in the creation of Web content. Assessment:This will be assessed and scored with an exam.

Create dynamic web content using programming concepts. Expected SLO Performance: 0.75

Business Information Technolog Web Professional Certificate of Achievement	1. Identify concepts of Internet technology, networking, databases, and electronic communications. Assessment:This will be assessed with an exam.

Write programs that will add, edit, and delete records from a MySQL database. Expected SLO Performance: 0.75

Business Information Technolog Web Professional Certificate of Achievement	3. Use valid markup, cascading style sheets, semantic encoding, accessibility compliance, and error-free scripting in the creation of Web content. Assessment:This will be assessed and scored with an exam.

Write programs that process form input data and use it to update a MySQL database. Expected SLO Performance: 0.75

Business Information Technolog Web Professional Certificate of Achievement	3. Use valid markup, cascading style sheets, semantic encoding, accessibility compliance, and error-free scripting in the creation of Web content. Assessment:This will be assessed and scored with an exam.

Use PHP to maintain session state between pages or log-ins. Expected SLO Performance: 0.75

Business Information Technolog Web Professional Certificate of Achievement	3. Use valid markup, cascading style sheets, semantic encoding, accessibility compliance, and error-free scripting in the creation of Web content. Assessment:This will be assessed and scored with an exam.

Outline

Course Outline

A. PHP Hypertext Preprocessor (PHP) Basics
1. Assigning information
2. Different data types
3. Operators
4. Using comments
B. Variables
1. Variables and literals
2. Understanding identifiers
3. Creating user-declared variables
4. Assigning values to variables
5. Declaring and using constants
6. Understanding variable scope
7. Data types
C. Operators
1. Concatenation operator
2. Basic operators
3. Comparison operators
4. Logical operators
5. Operator precedence
D. Functions
1. Defining a function
2. Adding parameters
3. Calculations
4. Return values
E. Control structures
1. Selection statements
2. Loops
F. Manipulating strings
1. Concatenation operator
2. String functions
G. Form handling
1. $_GET and $_POST variables
2. Form validation
H. Working with databases MySQL
1. Overview of databases
2. Simple database design (no normalization)
3. Creating tables
4. Inserting information into tables
5. Viewing data
6. Editing and deleting data
7. Order and pattern matching
8. Retrieving records
I. Manipulating MySQL Databases with PHP
1. MySQL connections

2. Retrieving records from a table
3. Inserting a record
4. Updating a record
5. Deleting a record
6. Checking for duplicate entries
J. Managing Session States
1. Session variables
2. Starting a session
3. Storing a session
4. Destroying a session
K. Error Handling and Debugging
1. Types of errors
2. Handling and reporting errors
3. Debugging techniques
L. Secure Coding with PHP
1. Understanding PHP security issues
2. Important security steps to take

Lab Outline

A. PHP Basics
1. Assigning information
2. Different data types
3. Operators
4. Using comments
B. Variables
1. Variables and literals
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Delivery Methods

Delivery Method: Please list all that apply -Face to face -Online (purely online no face-to-face contact) -Online with some required face-to-face meetings ("Hybrid") -Online course with on ground testing -iTV – Interactive video = Face to face course with significant required activities in a distance modality -Other

- Face to face
- Online (purely online no face-to-face contact)
- Online with some required face-to-face meetings ("Hybrid")
- iTV – Interactive video = Face to face course with significant required activities in a distance modality

Rigor Statement: Assignments and evaluations should be of the same rigor as those used in the on-ground course. If they are not the same as those noted in the COR on the Methods of Evaluation and out-of-class assignments pages, indicate what the differences are and why they are being used. For instance, if labs, field trips, or site visits are required in the face to face section of this course, how will these requirements be met with the same rigor in the Distance Education section? Describe the ways in which instructor-student contact and student-student contact will be facilitated in the distance ed environments.

All assignments in distance education course sections of DMA C213 are of the same rigor as those in the on-ground section, except that students in purely online sections will submit all of their assignments virtually. Instructor evaluation of student work in distance education course sections is the same as in the on-ground course section, except that evaluation of student work in the online version is presented virtually. Instead of onsite lectures, hybrid and online courses use a variety of methods including, but not limited to videos, and written lecture notes. Students will interact with the instructor and other students via discussion forums or similar methods.

Good practice requires both asynchronous and synchronous contact for effective contact. List the methods expected of all instructors teaching the course. -Learning Management System -Discussion Forums -Message -Other Contact -Chat/Instant Messaging -E-mail -Face-to-face meeting(s) -Newsgroup/Discussion Board -Proctored Exam -Telephone -iTV - Interactive Video -Other

- Discussion Forums
- Message
- Chat/Instant Messaging
- E-mail

Software and Equipment: What additional software or hardware, if any, is required for this course purely because of its delivery mode? How is technical support to be provided?

Software used in this course is open source. Technical support will be provided by the instructor. A laptop or desktop computer with Windows or Mac OS is sufficient hardware.

Accessibility: Section 508 of the Rehabilitation Act requires access to the Federal government's electronic and information technology. The law covers all types of electronic and information technology in the Federal sector and is not limited to assistive technologies used by people with disabilities. It applies to all Federal agencies when they develop, procure, maintain, or use such technology. Federal agencies must ensure that this technology is accessible to employees and the public to the extent it does not pose an "undue burden". I am using -iTV—Interactive Video only -Learning management system -Publisher course with learning management system interface.

- Learning management system

Class Size: Good practice is that section size should be no greater in distance ed modes than in regular face-to-face versions of the course. Will the recommended section size be lower than in on-ground sections? If so, explain why.

Online section size will not be lower than on-ground.

Emergency Distance Education Options The course will operate in remote delivery mode when all or part of the college service area is under an officially declared city, county, state, or federal state of emergency, including (check all that apply) - Online including all labs/activity hours - Hybrid with online lecture and onsite lab/activity hours - Correspondence education in high school and prison facilities - None. This course will be cancelled or paused if it cannot be held fully onsite.

- Online including all labs/activity hours