



UNIVERSITY OF
SOUTH FLORIDA

SARASOTA-MANATEE

Applied Informatics

COP 4834

Data-Driven Web Sites

Fall 2011

3 Credit Hours

University of South Florida – Sarasota/Manatee
8350 North Tamiami Trail, Sarasota, FL 34243

University of South Florida – Sarasota/Manatee

Course Syllabus – Fall 2011

(Revised: 08/08/11)

Course Number:	COP4834
Course Name:	Data-Driven Web Sites
Course Description:	This course teaches the student how to build dynamic, data-driven Web sites using the server-side scripting language PHP (PHP HyperText Preprocessor) to access data primarily using the MySQL database management system.
Instructor:	Dr. John Wiginton e-mail: cop4834.usfsmc@gmail.com . Please use this address for all communications with your instructor, as well as for submitting exercises and assignments.
Required Materials:	Jason Lengstorf, <i>PHP for Absolute Beginners</i> . Apress, 2009 ISBN-13: 978-1-4302-2473-0. David Powers, <i>PHP Solutions: Dynamic Web Design Made Easy 2nd edition</i> . friendsofED, 2010 ISBN-13: 978-1-4302-3249-0.
Suggested Supplementary Materials:	Vikram Vaswani, <i>PHP: A Beginner's Guide</i> . McGraw-Hill, 2008 ISBN-13: 9780071549011. Peter MacIntyre, <i>PHP: The Good Parts</i> . O'Reilly, 2010 ISBN-13: 9780596804374. W. Jason Gilmore, <i>Beginning PHP and MySQL, 4th edition</i> . Apress, 2010 ISBN-13: 978-104302-3114-1. Jason Gerner et al, <i>Professional LAMP: Linux, Apache, MySQL, and PHP5 Web Development</i> . WROX, 2006 ISBN: 0-7645-9723-X.
Prerequisites:	CGS3853 – Web Design (for HTML/xhtml and CSS); COP 3703 – Intermediate Database (for MySQL and SQL)
Pre-Class Assignment:	See Chapter 1 of the “PHP for Absolute Beginners” text. Download and install the XAMPP versions for your operating system. Your text also describes the use of the Eclipse IDE. An alternative IDE is Aptana Studio 3 (free

for download). It is also based on Eclipse, but provides built-in support for HTML, JavaScript, PHP and Python, all of which are used throughout our Web Design and Development Concentration.

Your instructor also uses Notepad++, as will be demonstrated. This is NOT a Microsoft product, and so is free for download from its web site.

Course Goals:

The goals of this course are:

- To teach students how to build dynamic, data-driven Web sites.
- To teach students the server-side scripting language PHP (PHP Hypertext Preprocessor) that may be used to create Web sites that are dynamic, customizable, and contain real-time information.
- To link PHP with a generic interface to a MySQL database.
- To have students complete a term project that includes the design and implementation of a working prototype dynamic, interactive, data-driven Web site.

Performance Objectives:

On completing this course, students should be able to:

- Explain the capabilities, features, and syntax of the PHP language and how it is embedded into HTML pages to make them dynamic.
- Use PHP to create client-side forms for capturing, validating, and transmitting data from the client to the server for storage in the database.
- Embed SQL statements within PHP to perform the necessary operations for working with the relational database.
- Explain and demonstrate how PHP and the relational database are used together to create real-world, dynamic, database-driven Web sites.

Attendance Policy:

The course will be conducted entirely on line using Elluminate. Our “synchronous” sessions are scheduled for Monday evening, nominally from 6:00 – 8:45 p.m.

Each session will be recorded, but that is not intended to give you permission to not log in. Logging in to our scheduled on line meeting constitutes “attendance.”

Performance Evaluation and Grading:

Student performance will be evaluated based on weekly exercises and assignments, and a term project. The relative weights for each of these components in determining the final grade are as follows:

Exercises and Assignments	60%
Term Project	<u>40%</u>
Total	100%

A grade will be determined based on the total of possible points earned, as follows: A 90-100; B 80-89; C 70-79; D 60-69; F 0-59.

Term Project

The Term Project requires that students implement the “blog” application described in the Lengstorf text. (See Weeks 11 through 14 in the Class Schedule).

Class Schedule

(Revised: 08/08/11)

Date	Topic
Week 1 (08/22)	Readings: Powers2e – Chapter 1, “What is PHP – and Why Should I Care?” Chapter 2, “Getting Ready to Work with PHP” Lengstorf – Chapter 1, “Setting Up the PHP Development Environment” Chapter 2, “Understanding PHP Language Basics”
Week 2 (08/29)	Readings: Powers2e – Chapter 3, “How to Write PHP Scripts” Lengstorf – Chapter 3, “Passing Information with PHP” Chapter 4, “Working with Databases”
Week 3 (09/05)	LABOR DAY – No Classes
Week 4 (09/12)	Readings: Powers2e – Chapter 4, “Lightening Your Workload with Includes” Chapter 5, “Bringing Forms to Life”
Week 5 (09/19)	Readings: Powers2e – Chapter 6, “Uploading Files” Chapter 7, “Using PHP to Manage Files”
Week 6 (09/26)	Readings: Powers2e – Chapter 8, “Generating Thumbnail Images”
Week 7 (10/03)	Readings: Powers2e – Chapter 9, “Pages That Remember: Simple Login and Multipage Forms”
Week 8 (10/10)	Readings: Powers2e – Chapter 10, “Getting Started with MySQL”

	Chapter 11, "Connecting to MySQL with PHP and SQL"
Week 9 (10/17)	Readings: Powers2e – Chapter 12, "Creating a Dynamic Online Gallery" Chapter 13, "Managing Content"
Week 10 (10/24)	Readings: Powers2e – Chapter 14, "Formatting Text and Dates"
Week 11 (10/31)	Readings: Powers2e – Chapter 15, "Pulling Data from Multiple Tables" Chapter 16, "Managing Multiple Database Tables" Chapter 17, "Authenticating Users with a Database"
Week 12 (11/07)	Readings: Lengstorf – Chapter 5, "Building the Entry Manager" Chapter 6, "Adding Support for Multiple Pages"
Week 13 (11/14)	Readings: Lengstorf – Chapter 7, "Updating and Deleting Entries" Chapter 8, "Adding the Ability to Upload Images"
Week 14 (11/21)	Readings: Lengstorf – Chapter 9, "Syndicating the Blog" Chapter 10, "Adding a Commenting Systems to Your Blog"
Week 15 (11/28)	Readings: Lengstorf – Chapter 11, "Adding Password Protection to Administrative Links" Chapter 12, "Finishing Touches" Term Project Presentations