

WEEK 10: INTRODUCTION TO PHP

**INFO/CS
1300: Fall
2016**

COURSE MAP

Topic Area	Dates	Goals	Assignments
Introduction and Infrastructure	8/24 – 8/26	1-5	All
HTML & Structure	8/29 – 9/9	1,2	Brief Assignments
CSS & Presentation	9/12 – 9/30	2	
Client-Side Scripting: JavaScript & jQuery	10/3 – 10/21	3	
Server-Side Scripting: PHP	10/24 – 11/4	3	
Basic User Testing	11/7 – 11/18	4	Final Project
Taking a Site Live	11/21 – 12/2	1-5	

AGENDA

- Introduction to PHP.
- Basic PHP:
 - Variables and types.
 - Arrays.
 - Functions.
 - Simple includes in HTML.
- Review of JavaScript.
 - Based on feedback from midterm evaluations.

PHP: BACKGROUND

- PHP: recursive acronym, “PHP: Hypertext Processor”.
- Server-side scripting language.
 - Loosely typed.
 - Can be run from command line.
 - Has object-oriented features.
- Embedded in HTML via code islands, i.e., pieces of PHP code.
 - Full code can be placed in the HTML (bad practice).
 - The code island can point to an external PHP file (better practice).
- PHP can read in external files from the server, e.g., CSV or XML:
 - **CSV:** `steve,paling,sp2285`.
 - **XML:** `<first_name>Steve</first_name>...`
- PHP has extensive features for connecting to SQL databases.

PHP: VARIABLE TYPES

■ Variable types in PHP:

- **String:** `$name = "steve";`
- **Integer:** `$counter = 0;`
- **Float (aka double):** `$hourly_pay = 15.25;`
- **Boolean:** `$box_checked = true;`
- **Array:**
 - May contain heterogeneous data types.
 - Can be returned from functions (only way to return multiple values).
 - **Array:** `$fruit = array("Apples", "Bananas", "Plums");`
 - **Associative array:** `$player_numbers = array("Brady" => 12, "Blount" => 29);`
- **Resource:** external data, e.g., an image or a SQL query result.
- **Object:** instance of a class.

PHP: VARIABLES

- Declaration: `$temp_f = 57;`
- Type juggling/conversion: `1 + 1` is not the same as `1 . "1"`

PHP: FUNCTIONS

- Function: block of related commands.
- Separate scope from rest of script.
- May have its own variables.
- May have an explicit return, e.g., a variable or an array.

PHP: INCLUDES

- Includes code from an external PHP file.
- Used to script in parts of an HTML page.