Z603: PHP/POSTGRESQL
ANDREW TSOU
MONDAYS, 1:00PM-3:45PM, SPRING 2016
SWAIN EAST 045

GOALS AND OBJECTIVES

Upon successful completion of this course, students should be able to:

- Program a dynamic application that accepts and records input from users
- Automatically harvest data from a variety of sources, including web pages and CSV spreadsheets
- Programmatically parse and analyze data

Knowledge of basic HTML is recommended but not required.

CONTACT INFORMATION

Email: atsou@umail.iu.edu
Office hours: By appointment

HONOR CODE

This class, as all classes at Indiana University, requires that students abide by the “Code of Student Rights, Responsibilities and Conduct.” Please familiarize yourself with this document:

http://www.iu.edu/~code/

Students found to be engaging in plagiarism, cheating, or other types of dishonesty will be reported to the Dean's Office for appropriate action. In particular, please understand the various nuances of plagiarism and avoid engaging in this type of behavior.

GRADES

Grades will be assigned on an A, B, C, D, F scale. The following definitions of letter grades have been defined by student and faculty members of the Committee on Improvement of Instruction and have been approved by the faculty (November 11, 1996) as an aid in evaluation of academic performance and to assist students by giving them an understanding of the grading standards at ILS.

<table>
<thead>
<tr>
<th>Grade</th>
<th>GPA</th>
<th>%</th>
<th>MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.0</td>
<td>96-100</td>
<td>Outstanding achievement. Student performance demonstrates full command of the course materials and evinces a high level of originality and/or creativity that far surpasses course expectations.</td>
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A-  3.7  90-95  Excellent achievement. Student performance demonstrates thorough knowledge of the course materials and exceeds course expectations by completing all requirements in a superior manner.

B+  3.3  87-89  Very good work. Student performance demonstrates above-average comprehension of the course materials and exceeds course expectations on all tasks as defined in the course syllabus.

B  3.0  84-86  Good work. Student performance meets designated course expectations, demonstrates understanding of the course materials and is at an acceptable level.

B-  2.7  80-83  Marginal work. Student performance demonstrates incomplete understanding of course materials.

C+  2.3  77-79  Unsatisfactory work. Student performance demonstrates incomplete and inadequate understanding of course materials.

C  2.0  74-76

C-  1.7  71-73

D+  1.3  69-70

D  1.0  67-68

D-  0.7  65-66  Unacceptable work. Coursework performed at this level will not count toward the MLS or MIS degree. For the course to count towards the degree, the student must repeat the course with a passing grade.

F  0.0  <65  Failing. Student may continue in program only with permission of the Dean.

All assignments must be handed in on their due dates. If you cannot deliver an assignment or a project on the date it is due, it is your responsibility to discuss your situation with the instructor in advance of the due date. Late assignments will automatically lose one-letter mark from the grade they would have received had they been turned in on time.

**Assignments:**

**Weekly assignments (50%)**
You will be asked to demonstrate a working knowledge of the concepts covered in class, including regular expressions, programmatically harvesting data from online sources, creating applications that interact with users, etc. You are free to consult online resources (the official PHP manual is a fantastic resource for beginning and advanced programmers alike), and you are encouraged to discuss problematic areas with your fellow classmates and the instructor.

**Final project (50%)**
Using relevant concepts from class, you will be asked to design and implement a project that demonstrates your understanding of the PHP language and the purposes for which it can be used. This is a rather open-ended project, and it need not be a comprehensive reflection of the course material. We will discuss this further in class, but for now it should be sufficient to say that you are encouraged to use this as an opportunity to use PHP to advance your own research, or to otherwise apply the course material to your professional goals and ambitions, so please do be thinking about this for the first few weeks of class. The final form of the project will be entirely up to you – however, I do ask that you clear your topic/approach with me before beginning your project.
SCHEDULE

WEEK ONE: MONDAY, JANUARY 11
- Introduction to PHP
- Demos
- Variables

WEEK TWO: MONDAY, JANUARY 18
- NO CLASSES: Martin Luther King Jr. Day

WEEK THREE: MONDAY, JANUARY 25
- If, elseif, else statements
- Logic and comparison operators

WEEK FOUR: MONDAY, FEBRUARY 1
- For, foreach, and while loops

WEEK FIVE: MONDAY, FEBRUARY 8
- Arrays

WEEK SIX: MONDAY, FEBRUARY 15
- Arrays (continued)

WEEK SEVEN: MONDAY, FEBRUARY 22
- $_GET and $_POST
- Sessions

WEEK EIGHT: MONDAY, FEBRUARY 29
- Reading from and writing to files
- OOP/Functions

WEEK NINE: MONDAY, MARCH 7
- Regular expressions

WEEK TEN: MONDAY, MARCH 14
- NO CLASSES: Spring break

WEEK ELEVEN: MONDAY, MARCH 21
- Web scraping

WEEK TWELVE: MONDAY, MARCH 28
• Web scraping (continued): CURL

**WEEK THIRTEEN: MONDAY, APRIL 4**
• SQL basics

**WEEK FOURTEEN: MONDAY, APRIL 11**
• SQL advanced

**WEEK FIFTEEN: MONDAY, APRIL 18**
• Review/wrap-up/project questions

**WEEK SIXTEEN: MONDAY, APRIL 25**
• Project presentations