University of La Verne

COMPUTER SCIENCE & COMPUTER ENGINEERING PROGRAM

Central Campus, Spring 2018

CMPS 320 INTERNET APPLICATIONS - 1650

COURSE INFORMATION:

Units:	4.0 Credit Hours
Pre-Req.:	CMPS 318 or CMPS 378
Schedule Types:	Lecture/Seminar
Requirements:	Computer Science and E-commerce B.S. Elective **Core** Requirements for Internet Programming Concentration.
Attributes:	UVLL Lifelong Learning.
Class Location:	Founders Hall 207
Course Time:	Lecture/Seminar: Thursday 6:50 – 10:00 p.m.

INSTRUCTOR INFORMATION:

Instructor:	Professor Jozef Goetz Ph.D.
Office:	Founders Hall 108 B
E-mail:	JGoetz@laverne.edu
Phone:	(909) 448-4663
Office Hours:	M: 4:15 – 6:15 p.m.

COURSE DESCRIPTION:

PHP (Personal Home Page) is a powerful tool for making **dynamic** and **interactive** Web pages. In this course you will learn how to use PHP to build **interactive** database-driven web sites. PHP is the **most popular** and **used** server-side language on the Web, 83.1% (Feb 2018) of all the websites (including Facebook, Twitter, WordPress and Wikipedia). It is open-source (**free**) and runs on several operating systems including Windows, UNIX/Linux and Mac OS X. A primary **benefit** of server-side programming is its ability to **interact with databases**. By investing in **PHP web development** not only can you develop dynamic websites within your **budget**. This course is focused on website development, with an emphasis on Web-based programming using open source software such as PHP and a MySQL database (the **world's most popular** open source database). **Tools**: LINUX/UBUNTU, Apache, MySQL, Web Developer Add-ons for Mozilla Firefox, Mozilla Firefox, Chrome, XAMPP, FirePHP and PHP editor.

Topics include: Web Servers, LINUX, Structured Query Language (SQL), MySQL, Creating a Database, PHP Basics, Programming with PHP, Connecting to MySQL with PHP, Form Processing, Creating Dynamic Web Sites, Shopping Cart.

COURSE OBJECTIVES:

Students enrolled in this class will be able to fulfill the following objectives:

1. Install and configure all-in-one (Apache, PHP, MySQL) on UBUNTU.
2. Demonstrate an understanding of the server environment and architecture of data-driven Web applications.
3. Use Structured Query Language (SQL) to retrieve data from and manipulate data in a database.
4. Create and access MySQL databases through PHP scripting.
5. Demonstrate an understanding of the basic **principles, concepts, constructs** of the server side programming language PHP, which one can use to build dynamic web pages.
6. Use PHP to create web-based forms for adding new entries to, and modifying existing information in a MySQL database on the fly.
7. Explore the basic techniques of using PHP to retrieve information from a database and display it on the Web in real time.
8. Build PHP dynamic websites that interact with a MySQL database.
9. Demonstrate analytical and problem-solving skills by applying the following steps: problem definition, analysis, decision making, coding, testing and publishing web sites using cutting-edge tools.

GENERAL LEARNING OUTCOMES:

1. Acquire **basic concepts** in software, engineering and information technology (objectives 1 – 8).
2. Demonstrate skills in **analyzing** problems before and during a project (objectives 7 - 9).

3. Be prepared to get jobs in industry related to concentration area such as E-commerce, Internet Programming, Software Engineering, and Information Science (objectives 1 – 8).
4. Obtain a sense of "**urgency**" to meet deadlines (objective 6).

📖 **REQUIRED TEXT:**

[1] *PHP & MySQL Novice to Ninja*, **6th edition** by Kevin Yank, Tom Butler, SitePoint Pty. Ltd., November **2017**, ISBN-13: 978-0994346988, ISBN-10: 0994346980.

> **Kevin** Yank a world-renowned leader in web development. The book is a hands-on guide that will help you **build your first database driven website**. You'll learn how to use PHP (used on **20 million sites worldwide**) to build **your own working content management system using entirely free software**. The book also **teaches you best practices in database design using MySQL, and covers all the latest technologies**.
>
> **Tom** Butler is a web developer, a Ph.D student researching **software best practices**, and university lecturer from the UK with an interest in programming best practices, separation of concerns and a **"less is more" approach to code**.

RECOMMENDED:

[2] *Internet & World Wide Web: How to Program*, 5/E by Harvey & Paul Deitel & Associates, Prentice Hall, **2012**, ISBN-10: 0132151006 • ISBN-13: 9780132151009.

✍ **EVALUATION AND GRADING:**

There will be lab and quiz assignments, projects, midterm and final exams. The course grade will be calculated as follows:

Lab, project assignments	45%
Midterm	25%
Project Presentation	05%
Final project and exam	25%
TOTAL	100%

Final course grades will be assigned as follows:

94 – 100 = **A**	90 – 93 = **A-**	87 – 89 = **B+**
84 – 86 = **B**	80 – 83 = **B-**	77 – 79 = **C+**
74 – 76 = **C**	70 – 73 = **C-**	67 – 69 = **D+**
64 – 66 = **D**	0 - 63 = **F**	

NATURE OF ACTIVITES IN THE CLASS

1. **Time spend outside of class:**

In order to gain genuine knowledge and skills you should know that for every **one credit hour** in which you enroll, you need to spend approximately **two to three hours** outside of class **studying** and **working** on **assignments** for the course. So, students should plan to work **at least 8 - 12 hours** per week outside of class.

2. ☺**Collaboration:**

One of the goals **of studying at the university is to learn how to learn. Learning is a long life process. One of the** computer-science educational methods is an **Extreme Learning** method. Extreme Learning integrates **problem-based learning, pairing learning, collaborative learning** practices to help students gain more hands-on experience and in-depth knowledge on specific topics. **Collaborative** learning in pairs allows **students to open interaction, educate each other** and **share ideas, knowledge and experience.**

Guidelines:

a. You should use the **Extreme Learning** method by giving each other technical support, help understand the assignment and brainstorm general solution but each student must submit **your own detailed project solution.**
b. Each member of the group project should be able to explain any part of the submission, and **not just be able to explain "his or her" part.**

3. 🔔 **Attendance and Participation:**

Required and verified. Attendance and class participation are extremely important in this course. You should **notify the instructor in advance of your absence** from the scheduled course meeting. **It is essential** that you **attend all lectures and labs to succeed in the course.** Regardless of excuse, absences in excess of **three week classes** will result in the automatic exclusion of the student from that class and you will receive a **grade of F.** If you are absent from class, it is your responsibility *to make-up* any missed classes and check on announcements made while you were absent. **It is essential that you attend all**

lectures and labs to succeed in the course.

You have to **read** corresponding sections in the **textbook,** which will be covered at the **next** class meeting. In addition to that, **after** each lecture/lab session you should study sections in the **textbook one more time** and run all corresponding programs.

4. 🕭 **Timeliness:**

You are expected to be in your seat and ready to begin class promptly at the start of each class. **Don't leave the class before class ends.** When students do that, it **negatively affects** the **whole class.** It is **distracting** and **rude, and sends a message** that the **material is easy, which is not true.** Schedule your day such that you may manage contingencies (such traffic, doctor appointments, etc.) when they occur. The instructor maintains the discretion to mark you absent for all or part of the class in the event you fail to be timely and prompt.

5. ☺ **Class Contribution:**

Class Contribution in the form of presentation your final project, **comments** that relate to material in the text and **answering a question** asked by the professor or another student counts for **extra points** of your grade in this course.

6. ✍**Lab, home and project assignments**:

The class will be presented as a combination of *lectures and hands-on activities*. Several lab and project assignments will be given over the course of the semester. An electronic version of the project assignments can be downloaded from the course's Web site. All assignments will be graded on a scale from 0 to 2 after presenting the assignments to the instructor. Expect one to two quick questions to show your understanding.

You will receive a **score of zero** if **falsified input/output** that doesn't much the source code or submissions that are plagiarized or that violate the collaboration guidelines.

You will need to **create** and submit the **final** project of your choice. At the end of the semester you will present your project to the class. You need to turn in your projects according to the description found in 1_Project Submittals.doc at http://classes.jgspectrum.com/classes/320_S18/Guidelines/. Please do not attempt to **turn in any lab assignment by email. No credit will be given for such work.** Each project assignment will be submitted in a **clear plastic binder** with a firm **attached** USB flash drive to the binder. This USB drive should contain only all documents and executable file for the current assignment.

Class and **project assignments** are the **key** to your **success**. Don't expect to learn or have a good grade if you miss classes and/or home assignments. You will **build** your knowledge and skills **based** on the **previous classes** and **project assignments**.

7. ☻ **Make-up and late assignments**.

No credit will be given for assignments turned in after the due day specified in Assignment.doc. Assignments MUST be submitted **before class begins** on the due date**. No-makeup assignments are allowed. Do not get left behind**. Unless extraordinary circumstances can be documented, no assignments will be accepted after the beginning of class on the day the assignment is due. **No assignments will be accepted after they have been handed back or reviewed in class.**

8. ✍**Midterm and Final Exams:**

There will be two exams to complete the course work and obtain a grade for the course. **There will be no make-ups for the midterm and final examinations**. If you are absent from a **midterm** and have a **valid excuse**—an illness, a death in your family, injury or another equally compelling reason—the weight of your final will be increased by the weight of the midterm. You must provide **adequate** and **verifiable** documentation. Without a valid excuse, you will receive a **zero score for** the **midterm** and the final's weight will remain unchanged. A missed **final** will be dealt with according to University regulations on incompletes and withdrawals. Midterm and final **exams** will cover specified chapters (see schedule for dates and coverage).

9. 🗁**Course material:**

All handouts, my syllabus, guidelines, lecture notes, links and assignments will be posted at http://classes.jgspectrum.com/. You will see a folder labeled 320, and you will find all **CMPS 320** documents there. You may copy them to your computer.

10. 🎜**Email Policy:**

I usually reply to emails that require a fast answer within 24-36 hours on weekdays. I will not reply to email messages that are unclear or disrespectful. Please include your **class name** and **section** in the **subject** field and a **salutation** (e.g. Dear Professor Goetz), so that it is clear that the message is not junk mail and deleted. **Students must check their e-mail**

messages on a daily basis. I will only use your Laverne e-mail address.

11. **Others:**

Before class begins, **turn off cell phones**. The **cell phone vibrating** or a **student texting** can be **very distracting to those around the student,** including **the faculty.** Please don't use **cell phones, e-mails, keyboards, browsers** etc. **during lectures** unless the instructor asks you. **Desktops** and **laptops** are to be **used only** for the purpose of lab exercises and taking notes. No recording devices are allowed.

Note: Students **who use their mobile phones** during class lectures tend to write down less information, **recall less information**, and **perform worse** on a multiple-choice test than those students who abstain from using their mobile phones during class (p.251). Reference: Kuznekoff. J. H. and Titsworth, S. (2013). The impact of mobile phone usage on student learning. *Communication Education*, *62*(3),233-252.

No clicking keyboard while lecturing. **Please don't leave the class meeting during lectures.** All the above activities are **very disruptive** to others in class.

Every time students should **bring a USB flash drive** to class. Please note that absolutely **all of your work must be saved on your USB drive after each class.**

Patience and **attention** to detail are important to succeed in Apps Development.

Good luck in your course!

Tentative schedule (subject to change):

Date	Week No.	Topic	Reading Chapter
Feb 8	**1**	**Syllabus.** **Installation:** Apache, MySQL, PHP in XAMPP on **Ubuntu. Testing. Review Ubuntu and Linux command.**	[1]ch1
Feb 15	**2**	**Introducing PHP:** Basic Syntax and Statements, Variables, Operators, and Comments Lab Exercises	[1]ch2 [2]ch19
Feb 22	**3**	**PHP:** Arrays, User Interaction and Forms Lab Exercises	[1]ch2, [2]ch19
March 1	**4**	**Introducing MySQL** Lab Exercises	[1]ch3, [2]ch18
March 8	**5**	**Publishing MySQL Data on the Web** Lab Exercises	[1]ch4, [2]ch18
March 15	**6**	**PHP: Form Processing and Reading from a Database** Lab Exercises	[2]ch19.8 – 19.9
03/22		**Spring Break**	
March 29	**7**	**Relational Database Design** Lab Exercises	[1]ch5
April 5	**8**	**Midterm:** **Dynamic Content**	[2]ch19.11
April 12	**9**	**Structured PHP Programming** Lab Exercises	[1]ch6
April 19	**10**	**Improving the Insert and Update Functions** Lab Exercises	[1]ch7
April 26	**11**	**Object and Classes** Lab Exercises	[1]ch8

May 3	**12**	**Creating an Extensible Framework** Lab Exercises	[1]ch9
May 10	**13**	**Creating an Extensible Framework** Lab Exercises	[1]ch9
May 17	**14**	**Allowing Users to Register** Lab Exercises	[1]ch10
May 24	**15**	**Cookies, Sessions, and Access** Lab Exercises	[1]ch11
May 31	**16**	**Final : Thursday 6:50 pm**	above chapters

14. PLAGIARISM POLICY:

Students are encouraged to collaborate outside of class to discuss and debate course concepts. However, **all assignments MUST be completed and written up individually**. If the assignment has been designated a team assignment by the instructor, **each student is required to turn in his or her own solutions.**

A grade of "F" will be assigned for the course for any occurrence of the **academic dishonesty either in exam, quiz or assignments.** It is all right to ask someone else about how to solve a problem, but it is not all right to copy their code. **Any cases of someone turning in work that is not originally theirs** will be dealt **with by assigning zeros to both parties** involved.

Each student is **responsible** for performing academic tasks in such a way that **honesty** is not in question, unless an exception is specifically defined by an instructor, students are expected to maintain the following **standards of integrity**: 1) **All** tests, term papers, oral and written assignments, and recitations are to be the **work of the student** presenting the material. 2) Any use of the wording, ideas, or findings of other persons, writers, or researchers requires the **explicit citation of the source**; use of the exact wording requires "quotation" format. 3) Deliberately supplying material to a student for purposes of plagiarism is also culpable. The dean may place on probation, suspend, or expel any student who violates the academic honesty policy. (See ULV catalog).

Acceptance of this syllabus constitutes acknowledgement by holder that s/he has read and agrees to the provisions of the foregoing contract.