



IT-540/ CS-340-OL Summer II 2017 Web Programming

Dates: 07/03-08/11/2017	Time: Online	Location: http://blackboard.valpo.edu
Instructor: Sonja Streuber	Office Hours: MTWRF 11:00-12:00 in 145H Meier & Google Hangouts	Contact: sonja.streuber@valpo.edu

Introduction



Welcome to IT-530/ CS-340, Web Programming! This course serves as an introduction to WWW technology and covers both, server-side and client-side programming, with specific attention to usability, privacy, and security issues in website design. Using a number of specific programming languages such as html/ CSS. PHP, MySQL, and JavaScript, students learn how to design, implement, deploy, and maintain a commercial website.

Learning Objectives

Students learn about web design and programming, with a major focus on commercial applications. With that in mind, the outcomes of this course are to:

1. Demonstrate basic competency in Web development and programming.
2. Explain the basic concepts of the Internet, client-server architecture, features, and tools.
3. Explain and distinguish the types of software capabilities that can be programmed for the client side and the server side.
4. Develop a basic Web site and set of Web pages using a modern Web development tool.
5. Explain and apply basic Web design and usability principles.
6. Develop and incorporate software capabilities in Web pages using various programming languages.
7. Deploy a basic Web site on a Web server.
8. Explain basic privacy and security issues.
9. Explain applications of Web-based technology in the real world and give examples.
10. Demonstrate "hands on" proficiency in using computer software tools and/or languages to accomplish the above course objectives.

Course Format and Attendance Requirement

This is **not** a self-paced MOOC, but an intense project-based lab course. Your weekly work schedule is:

- **Monday&Tuesday:** Read and watch the materials for the week. Start the weekly lab.
- **Wednesday:** Post your initial response to the discussion question by 11:59 pm CST.
- **Thursday:** Review more materials for the week; finish lab and start testing your code
- **Friday:** Respond to your peer's discussion post AND post lab on Blackboard by 11:59 pm CST.

Required Textbooks & Materials

- *Head First PHP & MySQL*, Beighley & Morrison, 1st edition. ISBN: 978-0596006303. **BUY THIS BOOK.**
- A laptop computer (Windows, Mac, or Linux) with \geq 4GB RAM and 5GB available disk space
- Materials and videos as posted on Blackboard

Workload

This 2-credit course requires individual and team-based coding for several website proofs-of-concept. You will be completing the following:

1. **Weekly Discussions (6*(5 points for post; 5 points for response) =60 points):** Every Wednesday, you will answer the discussion question for the week. Every Friday, you will respond to your peer. Speed, correctness, and thoughtful responses that help your peer increase their understanding of the topic will earn you extra credit.
2. **Weekly Labs (5*10 points each=50 points):** Each week contains one lab assignment about a theoretical, practical, or programming problem. Solutions must be posted on Blackboard by 11:59 pm CST on Friday. **NO EMAIL SUBMISSIONS ACCEPTED.**
3. **Final Project (50 points):** Your final project will be a commercial website that employs the best practices in web development that we have explored in this course. It will be a combination of what you have learned in all the weekly labs and discussions, with additional polish, so that it can be deployed directly for a business. Using Screencast-o-matic, you will produce a video demo of your website and post it to YouTube for inclusion in your e-Portfolio.

You can earn up to 160 points in this course. No extra credit assignments will be given.

Letter Grade Conversion:

>93%: A	90-93%: A-	87-90%: B+	83-87%: B	80-83%: B-	77-80%: C+
73-77%: C	70-73%: C-	<70%: F			

Assignment Submission, Late Work, and Academic Honesty

- **Assignment Submission:** All Assignments must be submitted on Blackboard. **No emailed Assignments will be accepted.**
- **Late Work:** Work is considered late if not posted to Blackboard by 11:59 pm CST of the day on which it is due. **Late work will lose 50% of the grade.**
- **Academic Honesty:** **All work you submit for this course must be your own.** You may NOT use anyone else's words (from blogs, webpages, purchased solutions, etc.) without giving a clear source citation. If you are unsure, consult <http://www.plagiarism.org/> or the Writing Center. In addition, you must write and sign with your name the following statement on all course work:

I have neither given nor received, nor have I tolerated others' use of unauthorized aid.

For more information about Valparaiso University's Academic Honor Code, case review cycles, and potential penalties, please refer to <http://www.valpo.edu/student/honorcouncil/index.php>

Any work found in noncompliance with the Valparaiso University Honor Code will receive 0 points and be referred to the Graduate School. This causes much paperwork. If you plan to take any future classes with me after this one, please don't ruin your reputation by cheating.

Diversity and Inclusion

Valparaiso University aspires to create and maintain a welcoming environment built on participation, mutual respect, freedom, faith, competency, positive regard, and inclusion. This course will not tolerate language or behavior that demeans members of our learning community based on age, ethnicity, race, color, religion, sexual orientation, gender identity, biological sex, disabilities (visible and invisible), socio-economic status, or national origin. The success of this class relies on all students' contribution to an anti-discriminatory environment where everyone feels safe, welcome, and encouraged to engage, to explore, and ultimately, "to embark on a rewarding personal and professional journey" (Pres. Heckler).

Title IX

Valparaiso University strives to provide an environment free of discrimination, harassment, and sexual misconduct (sexual harassment, sexual violence, dating violence, domestic violence, and stalking). If you have been the victim of sexual misconduct, we encourage you to report the incident. If you report the incident to a University faculty member or instructor, she or he must notify the University's Title IX Coordinator about the basic facts of the incident. Disclosures to University faculty or instructors of sexual misconduct incidents are not confidential under Title IX. Confidential support services available on campus include: Sexual Assault Awareness & Facilitative Education Office "SAAFE" (219-464-6789), Counseling Center (219-464-5002), University Pastors (219-464-5093), and Student Health Center (219-464-5060). For more information, visit <http://www.valpo.edu/titleix/>.

Disability Support Services

As part of its mission for its students, Valparaiso University has developed a nondiscrimination policy, which identifies its intention to provide a safe and tolerant environment for all, including those with disabilities. Please contact Zebediah Hall, Director of Disability Support Services, at 6496, if you believe you have a disability that might require a reasonable accommodation in order for you to perform as expected in this class. See also <http://www.valpo.edu/disabilityss/>.

Academic Support

To get help, use the [Academic Success Center \(ASC\) online directory](http://valpo.edu/academicsuccess) (valpo.edu/academicsuccess) or contact the ASC (academic.success@valpo.edu) to help point you in the right direction for academic support resources for this course. Valpo's learning centers offer a variety of programs and services that provide group and individual learning assistance for many subject areas. These learning centers include:

- [Graduate Tutoring Lab](#): Serves the academic needs of Graduate students – tutors offer suggestions on organization of papers, assist in research and citations, and help in understanding difficult assignments. Additional one on one tutoring is also available.
- [Writing Center](#): Primarily serves the needs of undergraduate students, but is also available for Graduate students. Writing Consultants provide proofreading and editing assistance for papers and assignments.

Class Cancellations

Notifications of class cancellations will be made through Blackboard with as much advance notice as possible. It will be both posted on Blackboard and sent to your Valpo e-mail address. If you don't check your Valpo e-mail account regularly or have it set-up to be forwarded to your preferred e-mail account, you may not get the message. Please check Blackboard and your Valpo e-mail before coming to class.

Schedule

Week	Week Starting	Topic	Readings and Videos (read and watch before Monday)	Due by 11:59 pm CST W = Wednesday F = Friday
1	07/03	Introduction to Web Design with HTML Building Basic Webpages	HTML 5 Tutorial Lynda.com course: HTML Essential Training	W: Discussion F: LAB_01, Response
2	07/10	Building Advanced Webpages with Objects and Styles	PHP and MySQL Chapter 1 CSS Tutorial and JavaScript Tutorial Lynda.com course: JavaScript Essential Training Lynda.com course: CSS Essential Training	W: Discussion F: LAB_02, Response
3	07/17	Introduction to PHP and Forms	PHP and MySQL Chapter 1 Lynda.com course: PHP and MySQL Ch. 1-11	W: Discussion F: LAB_03, Response
4	07/24	Using PHP for Database-Driven Applications	PHP and MySQL Chapters 2,3 Lynda.com course: PHP and MySQL Ch. 12-14	W: Discussion F: LAB_04, Response
5	07/31	Integrating Databases and Content Management Systems	PHP and MySQL Chapters 4,5 Lynda.com course: PHP and MySQL Ch. 15-17	W: Discussion F: LAB_05, Response
6	08/07	Designing Web Interfaces for Secure Usability	PHP and MySQL Chapters 6,7 jQuery Tutorial Lynda.com course: PHP and MySQL Ch. 17-19	W: Discussion F: LAB_06/ Final Project, Response

APPENDIX**Student Learning Objectives—Computer Science Majors (Undergraduate)**

1. Students will demonstrate expertise in the development and design of software.
2. Students will have a working knowledge of the theoretical foundations of the discipline.
3. Students will demonstrate the ability to communicate computer science-related topics in written and oral form.
4. Students will demonstrate that they are informed citizens in the social and ethical implications of the use of computer technology.
5. Students will utilize their computer science education in either their careers or in the pursuit of graduate work.

Student Learning Objectives—Graduate School

1. Students will understand and practice methods of inquiry and strategies of interpretation within the student's field of study.
2. Students will master the knowledge and skills pertinent to the student's field of study.
3. Students will effectively articulate the ideas, concepts, and methods through written and oral presentation.
4. Students will understand the connection between their knowledge and skills on the one hand and their professional identity, responsibilities, and demands on the other.
5. Students will integrate knowledge and methods of their study with cognates and other disciplines.
6. Students will study, reflect upon, and practice ethical behavior and cultural sensitivity as they relate to professional and personal responsibility.

Student Learning Objectives—Information Technology Program (Graduate)

1. To understand and practice methods of inquiry and strategies of interpretation within the student's field of study.
 - 1A. Students will master several programming environments.
 - 1B. Students will learn to identify and isolate problems.
2. To master the knowledge and skills pertinent to the student's field of study.
 - 2A. Students will acquire an extensive technology related vocabulary.
 - 2B. Students will become comfortable using a wide range of technology environments.
3. To effectively articulate the ideas, concepts, and methods through written and oral presentation.
 - 3A. Students will be taught how to make formal, oral presentations and be required to give 6 such presentations during their program.
 - 3B. Students will write numerous, thorough papers requiring extensive research. They will be required to use the services on the writing center.
4. To understand the connection between their knowledge and skills on one hand and their professional identity, responsibilities, and demands on the other.
 - 4A. Students will understand the implications of legal and professional regulations as they relate to information technology.
 - 4B. Students will study how technology can be made available to people that are traditionally less advantaged.
5. To integrate knowledge and methods of their study with cognates and other disciplines.

- 5A. Students will learn techniques of modeling data from other disciplines.
- 5B. Students will study human factors in IT.
- 6. To practice ethical and cultural sensitivity as it relates to professional and personal responsibility.
 - 6A. Students will examine a wide range of ethical issues related to technology and the potential effects on people and the environment.
 - 6B. Students will explore the relationship between IT and ethnic and cultural diversity.