# **CS 80 Internet Programming**

## Syllabus - 2015 Spring

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#### Class Info

Section 1678 2:15p-3:35p TTh B203

Units: 3 • Transfer: CSU • Prerequisite: CS 3

### **Course Description**

This course surveys the many technologies that are used to program multitiered, client/server, database-intensive, Web-based applications. Topics include: HTML5, Cascading Style Sheets (CSS), JavaScript, XML, JSON, Ajax, Rich Internet Applications, Web servers, databases, MySQL, PHP, Ruby on Rails, Active Server Pages (ASP), JavaServer Faces, and Web Services.

#### **Certificate Information**

This course is required for the <u>Web Programmer Certificate</u> and is an option for the Computer Programming certificate. For more information on CSIS certificates, please visit our department Web site at <a href="http://www.smc.edu/csis">http://www.smc.edu/csis</a>

### **Add Policy**

Lately, my classes often fill weeks or even months before they begin, so you need to enroll as soon as you possibly can. Please read this important information regarding enrolling in classes that are full: **NEW! WAIT "POOL" INFO: IMPORTANT!** 

### **Student Learning Outcomes**

Students define Internet terms including eCommerce, Web server, 3-tier Web application,

- 1. MySQL, Active Server Pages, PHP, Rich Internet Applications, Ruby on Rails, RSS, and Web Services. As assessed by: lab assignments and tests.
- 2. Students create Web pages using HTML5, CSS, graphics, JavaScript, SQL, JSON, and XML. As assessed by: lab assignments, tests, and team project.

### **Course Objectives**

Upon completion of this course the student will be able to:

- A. Create web pages using HTML5.
- B. Set the style of web pages using the Cascading Style Sheet (CSS3) language.
- C. Design and implement basic client-side scripts using JavaScript.

- D. Design and implement basic server-side scripts using PHP.
- E. Create data documents using JSON and XML.

  Understand and use correctly Internet terms such as TCP/IP Protocol Suite, Model-View-
- F. Controller (MVC) architecture, client-side and server-side programming, Document Object Model (DOM), three-tiered Web application, RSS, RIA, Ajax, and Web Services.
- G. Describe, setup, and use Web servers such as Apache and Microsoft Internet Information Services (IIS).
- H. Create and manipulate databases using Structured Query Language (SQL) and MySQL.
- I. Understand how Rich Internet Applications are implemented using Ajax and JSON.

### **Sending Email To Me**

You MUST enter the Subject line of your email message to me as follows:

CS 80 : 1678 yourLastName, yourFirstName - subject

For example

CS 80: 1678 Parker, Peter - spiders on the web

My email address is geddes\_james@smc.edu .

#### **Your Email Address**

**VERY IMPORTANT:** Please note the following regarding email sent to you from SMC:

Your SMC email account is the official means of communication between you, your instructors and the College.

Where do I access my email? You access your SMC email account through Corsair Connect by clicking the "SMC @Email" link (no second login required). This account was created for you automatically.

### **Required Text**

Internet and World Wide Web How To Program, 5e; Harvey M. Deitel and Paul J. Deitel; © 2012; 920 pages., Paperback; **Publisher:** Prentice Hall; 5th edition (November 19, 2011); **ISBN-10:** 0-13-215100-6; **ISBN-13:** 978-013-215100-9

The above is a link to the Deitel site which has a link to the Amazon site where you can order the book. You can also order it from the SMC bookstore, although the price there is considerably higher.

Be sure to get the 5th edition.

Please do not get the "international version" as it has many differences from the normal edition.

You can get the eBook if you wish. You don't need the CD. All examples, slideshows, software, etc. you will need for this class will be available as a free download.

**Get started reading**: Here is a link to a PDF file of chapter 2 so you can get started reading about HTML5: <u>iw3htp5\_Ch02.pdf</u> Also, here is a link to a ZIP file of the Code Examples for chapter 2:

### Reference (not required)

Programming the World Wide Web, 7e; Robert W. Sebesta; Paperback; Publication Date: March 24, 2012; ISBN-10: 0132665816; ISBN-13: 978-0132665810

### Topics from Internet & World Wide Web How to Program, 5e to Be Covered

#### Week Chapter / Topic

- Chapter 1: Introduction to Computers and the Internet; Object-Oriented Programming; Model-View-Controller (MVC) architecture
- 2 Chapter 2: Introduction to HTML5: Part 1
- 3 Chapter 3: Introduction to HTML5: Part 2
- 4 Review on Tuesday; test 1 on Thursday
- 5 Chapter 4: Introduction to Cascading Style Sheets™ (CSS3): Part 1
- 6 Chapter 5: Introduction to Cascading Style Sheets™ (CSS3): Part 2
- 7 Chapter 6: JavaScript: Introduction to Scripting
- 8 Review on Tuesday; test 2 on Thursday
- 9 Chapter 7: JavaScript: Control Statements I
- 10 Chapter 12: Document Object Model (DOM): Objects and Collections
- 11 Chapter 15: XML
- 12 Review on Tuesday; test 3 on Thursday
- 13 Chapter 16: Ajax-Enabled Rich Internet Applications with XML and JSON Chapter 17: Web Servers (Apache and IIS)
- 14 Chapter 18: Database: SQL, MySQL
- 15 Chapter 19: PHP
- 16 Final exams week: test 4 and team project presentations

#### **Schedule**

For the exact schedule with due dates for all work and tests:

- 1. Go to our class in eCompanion (see eCompanion below).
- 2. Click **Schedule** in the **Course Home** section.

### Grading

### **Each Points Percentage of Grade**

4 tests	100	400	40%
10 assignments	40	400	40%
1 project	200	200	20%
Total		1000	100%

#### Letter Grade

80 - 89% B 70 - 79% C 60 - 69% D 0 - 59% F

#### **Tests**

There will be four tests to assess your understanding of the material covered.

### **Assignments**

There will 10 homework assignments. The assignment will be due one week (7 days) after the Unit begins. The due date for each assignment is provided in the Schedule. Each assignment is worth 40 points. Points are deducted for failing to meet the requirements of the exercises and/or failing to follow closely all instructions. If you simply copy someone else's work, points will be deducted from both students' scores for plagiarism.

### **Late Assignments or Tests**

Solutions to assignments and tests will be provided immediately after the due date. Therefore, **late** work will not receive credit.

**Note:** The schedule and lateness policy will be strictly observed. In my experience, computer tasks usually take two to three times longer than expected. Please plan accordingly.

### **Team Projects**

Students will work in teams consisting of between one and six students. The project will consist of the design and creation of some Web page of your choice. Here you get to solve a problem of interest to you and to use your imagination. The project does not have to be anything fancy, but each team member must spend at least twenty hours working on it. Be creative and have fun.

#### **Method of Presentation**

Lecture and discussion of concepts and technologies for solving Internet-related problems; demonstration of development tools and examples; examination of HTML5 and scripts used in the problem solution.

### **eCompanion**

Many learning resources for our course are available in **eCompanion**. When the semester begins you will be able to access our class in eCompanion as follows:

- 1. Login to Corsair Connect (<a href="http://www.smc.edu/CC">http://www.smc.edu/CC</a>).
- 2. Select SMC Online.
- 3. CS 80 Internet Programming: Section 1678.

The site is organized into 16 *units*, one for each week of the class. Each unit consists of the following sections:

• Introduction - an introduction to the topic(s)/chapter(s) covered in this unit.

- **Reading** the chapter(s) and sections to read in the Deitel textbook.
- Lecture Notes my exposition of the topics.
- **Resources** links to Web sites containing relevant information.
- Slideshow PowerPoint slideshows.
- Assignment the exercises to do and turn in to the SMC Online *Dropbox*.
- **Discussion** a threaded discussion of the topics covered. Here you can get timely answers to all questions.

#### The following are also provided:

- **Doc Sharing** download PowerPoint slideshows of the chapters we will cover plus some other useful resources.
- **Dropbox** submit your assignments, tests, and team project.
- **Gradebook** see your score for each graded item along with my comments and your current grade.
- Email support.

### **Tutoring**

The CSIS Department offers free tutoring to all currently enrolled CSIS students. For more information, please see <u>CSIS Tutoring</u>.

### **Academic Honesty**

The academic honesty policy of Santa Monica College will be strictly enforced. See Code of Academic Conduct in the *Student Planning Guide for Success*.