# CSCI 130 SYLLABUS

# WEB PROGRAMMING

## INTRODUCTION

Web programming refers to the writing, markup and coding involved in Web development that includes Web content, Web client, server scripting, and network security. Different types of languages are used in Web programming: markup languages and programming languages. XML is used to describe data; HTML is used for the logical structure, CSS for the layout. JavaScript and PHP (for programming). This course about web programming will be about the creation of dynamic web documents by considering both the client and the server aspect. Modern Web documents are not static and they can be dynamically created and edited by the user or in relation to some databases.

All the material related to the course will be available on Canvas.

| **SYLLABUS FOR WEB PROGRAMMING (130)** | |
|---|---|
| **Semester: Semester 1 - Fall 2019** | **Department of Computer Science, California State University, Fresno** |
| **Course Name: Web programming (CSci 130)** | **Instructor Name: Hubert Cecotti** |
| **Units: 3** | **Office Location: 263 Sci2** |
| **Time: Mon-Wed 1-1:50PM (class)**<br><br>**Fri 3-4:50PM (lab)** | **E-Mail: hcecotti@csufresno.edu (subjects must include [CSCI130] )** |
| **Location: Industrial tech Building room 104 (lab)** | **Telephone: 559-278-4373** |
| **Website: Canvas** | **Office Hours: Mon 3:30-5PM, Wed 9-12AM** |

**Course description**: CSci130 is a 3-unit course that covers different aspects of programming for the World Wide Web (www). Web servers and clients, Internet and Web protocols, and mark-up languages. Client side scripting, including both gateway and filter-based approaches. A student should take this course because the Web is used by everybody on different devices (desktop computer, phone, tablet,..) on a daily basis. The place of the Web has taken an important place in our everyday life (e.g., social media, news, games, education). This Web programming course provides the skills and knowledge to create

dynamic web documents but also the tools to understand the evolution of the web, from static to dynamic documents, and its evolution to linked data.

*It is usually expected that students will spend approximately 3 hours of study time outside of class for every one hour in class. It includes reading (articles and specifications of technology and frameworks) and implementation of web pages. Since this is a 3-unit class, you should expect to study an average of 6 hours outside of class each week. It is necessary to practice to master the syntax of the multiple languages that will be covered in this class.*

**Prerequisites for the course:** The main prerequisites for the course are three semesters of programming: CSci 40, CSci 41, and CSci 115. Although not strictly necessary, you will find the course more manageable if you have also had some additional experience with Software Engineering (CSci 150/152), Internet working (CSci 156), and/or Database Systems (CSci 126). Please plan your schedules accordingly.

## REQUIRED COURSE MATERIALS

In this module, there is no required textbook. However, there are websites that will provide you all the information you need, with examples and corrections. Websites, links to youtube video, and other media will be given on Canvas to complete what is given during the classes. The class provides only the main element and it is required to visit other documents to have the complete list of commands and tags to master languages such as Javascript and PHP.

**Examples**:

- HTML5 & CSS3 (7th edition) by E. Castro and B. Hysop, 2012, 606 pages.
- CSS3 pushing the limits by S. Greig, 2013, 386 pages.
- HTML5 https://www.w3.org/TR/html5/Overview.html#contents
- Web development: https://developer.mozilla.org/en-US/
- HTML, CSS, Javascript, PHP: https://www.w3schools.com/
- Web Hypertext Application Technology Working Group: https://whatwg.org/
- PHP manual: http://php.net/manual/en/index.php
- Apache documentation: https://httpd.apache.org/docs/2.4/

## COURSE SPECIFICS

**Summary/outline of the course:** The course will start with an introduction about documents. We will see how the separation between the logical and the geometric parts of documents is essential for understanding the creation and generation of well-structured web documents. The course will continue with static document representation (HTML5) and Cascading Style Sheets (CSS3). Client-side scripting using Javascript will be presented with multiple examples and applications to enrich web documents and to links forms to applications. Then, we will consider PHP for the server-side scripting, and how it can be connected and used with a database to extract and update information. After Thanksgiving, we will deal with PHP and security. Then, we will see some frameworks for creating

websites and how the semantic web and linked data are becoming essential for the modern Web. Finally, we will finish with project presentations.

The outline may change in response to the feedback of the students and the progression of the class.

The course has a lab that meets once a week for about two hours. Lab time is used for various purposes, including:

- Programming project development: it allows you to get detailed and frequent feedback on your projects before they are due. The instructor will not debug your program and provide the direct solution. The instructor will not help you for syntax related issues. Being able to debug and analyze the code are key aspects of the lab session. There is no black magic behind the code and each error has a valid reason.
- Project presentations and midterms.

  Lab attendance is **mandatory**. The presence of each student will be carefully monitored in the class and the lab. You will be expected to make use of all of the lab time available to work on the assigned activity. Students who are taking classes that overlap with the lab time will not be allowed to take the course.

**Course goals**: At the end of this course, you will be able to develop websites with the most well used tools in the industry. This course will give you the skills to develop dynamic websites to create various websites.

**Student Learning Outcomes:**

- Students should demonstrate solid understanding of fundamental web document creation, by identifying the logical structure of a document and its presentation by using appropriate technologies such as **HTML5** and **CSS3**.
- Students should demonstrate solid skill of problem solving in web programming by choosing the appropriate tools and identifying data structures and methods to create dynamic websites.
- Students should be able to program in **Javascript** (JS) and **PHP** to create dynamic websites.
- Students should have key understanding about the relationships between the client and the server sides.
- Students should be able to work as a team to solve larger scale problem and use current social media tools to communicate efficiently and share files.
- Students should be able to present their software effectively, write well-structured and well-presented reports and presentations to communicate how their applications can be used with both computer science professionals and general audience.

**Instruction for significant assignments:**

The following elements represent the different assignments for the module. More information about each assignment will be given on Canvas and during the class.

1. Project (group of two students maximum and only)
    - Othello/Reversi
    - Learning outcomes: Team work, HTML5, CSS3, Javascript, Ajax, PHP, and MySQL.

**Grading policy:**
The percent score is computed according to the following division:

- Project: Othello/Reversi 26%
- Midterm 1: (on Canvas) 22%
- Midterm 2: (on Canvas) 22%
- Final exam: (on Canvas) 30%

  (Total=100%) There will **not** be any bonus or extra points for additional assignments.

Cut-off points on percent for each grade:

- A: [88-100]%
- B: [75-87]%
- C: [62-74]%
- D:[50-61]%
- F: [0-49]%

All midterm and final examinations are close book: Documents are not allowed. The final examination is comprehensive. Seating in examinations may be assigned by the instructor randomly. The final grading scale could be modified lower, subject to criteria of uniformity and fairness. All the assignments and communication must be sent directly to the instructor.

**Assignment and examination schedule**

| Due Date | Assignment | Points/Percent (in %) |
|---|---|---|
| NA | Attendance and participation (a maximum of 3 justified absences will not impact the mark) | 5 |
| Fri, Dec 7. | Project: Reversi | 25 |
| Fri, Oct 12 | Midterm 1 (topics: elements covered since Week 1) | 20 |
| Fri, Nov 30 | Midterm 2 (topics: elements covered since Midterm 1) | 20 |
| Dec 17 – 20 (TBA) | Final exam (topics: everything covered since Week 1) | 30 |

A course calendar will be available on Canvas.

## COURSE POLICIES & SAFETY ISSUES

Cell phones and tablets should be off during the class. Chewing gum, tobacco, wearing baseball caps, reading newspapers in class or other distracting behavior, bringing visitors, children or guests will not be allowed during the class. If you are caught using social media (Facebook, Twitter, Snapchat,…) during the class, you will be asked to leave the room. During parts of the class where you are asked to solve a problem, to suggest a solution, you will be allowed to work in collaboration.

The University Policy on Disruptive Classroom Behavior (APM 419) is well worth reading and can be found in the Class Schedule and the Academic Policy Manual.

**Late work and make-up work policy.** Give your make-up work policy due to student absence. Finally, include your late work policy if that is separate from the make-up work policy, and make clear the requirements for attendance of the final examination and the impact on his/her grade.

**Adding and Dropping Classes:** Students are responsible for understanding the policies and procedures about the adding/dropping of classes, academic renewals, etc. Students

can find more information on adding and dropping at http://www.fresnostate.edu/studentaffairs/classschedule/registration/add-drop.html.

If you are absent from class, it is your responsibility to check on announcements made while you were away.

**Plagiarism Detection:** The campus subscribes to Turnitin and the SafeAssign plagiarism prevention service through Canvas, and you will need to submit written assignments to Turnitin/SafeAssign. Student work will be used for plagiarism detection and for no other purpose. The student may indicate in writing to the instructor that he/she refuses to participate in the plagiarism detection process, in which case the instructor can use other electronic means to verify the originality of their work. Turnitin/SafeAssign Originality Reports **will not be available for your viewing.**

## UNIVERSITY POLICIES AND SERVICES

The syllabus must note the university **Policy on Students with Disabilities, the University Honor Code, the Policy on Cheating and Plagiarism**, a **statement on copyright**, and the **university computer requirement** University policies can be included in the syllabus by reference to statements in the University Catalog and Class Schedule. For example, you might state: "For information on the University's policy regarding cheating and plagiarism, refer to the Class Schedule (Legal Notices on Cheating and Plagiarism) or the University Catalog (Policies and Regulations)." You may also direct students to the online required syllabus policy statement page (http://www.csufresno.edu/academics/documents/RequiredSyllabusPolicyStatements_001.doc)

Below are statements that provide more than just the reference. In all instances, it is recommended that specific examples of what you consider to be cheating and plagiarism be included in **your course policy section**.

**Students with Disabilities:** Students with disabilities will receive reasonable accommodation for learning and evaluation. For more information, contact Services to Students with Disabilities in the Henry Madden Library, Room 1202 (278-2811). Students with disabilities may contact the instructor if they require specific arrangements.

**Honor Code:** "Members of the Fresno State academic community adhere to principles of academic integrity and mutual respect while engaged in university work and related activities."

**Cheating and Plagiarism:** Cheating is the actual or attempted practice of fraudulent or deceptive acts for the purpose of improving one's grade or obtaining course credit; such acts also include assisting another student to do so. Typically, such acts occur in relation to examinations. However, it is the intent of this definition that the term 'cheating' not be limited to examination situations only, but that it include any and all actions by a student that are intended to gain an unearned academic advantage by fraudulent or deceptive

means. Plagiarism is a specific form of cheating which consists of the misuse of the published and/or unpublished works of others by misrepresenting the material (i.e., their intellectual property) so used as one's own work. Penalties for cheating and plagiarism range from a 0 or F on a particular assignment, through an F for the course, to expulsion from the university. For more information on the University's policy regarding cheating and plagiarism, refer to the Class Schedule (Legal Notices on Cheating and Plagiarism) or the University Catalog (Policies and Regulations).

**Computers:** "At California State University, Fresno, computers and communications links to remote resources are recognized as being integral to the education and research experience. Every student is required to have his/her own computer or have other personal access to a workstation (including a modem and a printer) with all the recommended software. The minimum and recommended standards for the workstations and software, which may vary by academic major, are updated periodically and are available from Information Technology Services (http://www.fresnostate.edu/technology) or the University Bookstore (http://www.kennelbookstore.com). In the curriculum and class assignments, students are presumed to have 24-hour access to a computer workstation and the necessary communication links to the University's information resources."

**Disruptive Classroom Behavior:** "The classroom is a special environment in which students and faculty come together to promote **learning** and **growth**. It is essential to this learning environment that respect for the rights of others seeking to learn, respect for the professionalism of the instructor, and the general goals of academic freedom are maintained. Differences of viewpoint or concerns should be expressed in terms which are supportive of the learning process, creating an environment in which students and faculty may learn to reason with clarity and compassion, to share of themselves without losing their identities, and to develop an understanding of the community in which they live. Student conduct which disrupts the learning process shall not be tolerated and may lead to disciplinary action and/or removal from class."

**Copyright Policy:** Copyright laws and fair use policies protect the rights of those who have produced the material. The copy in this course has been provided for private study, scholarship, or research. Other uses may require permission from the copyright holder. The user of this work is responsible for adhering to copyright law of the U.S. (Title 17, U.S. Code). To help you familiarize yourself with copyright and fair use policies, the University encourages you to visit its

Copyright Web Page https:/library.fresnostate.edu/info/copyright-policy

Canvas course web sites contain material protected by copyrights held by the instructor, other individuals or institutions. Such material is used for educational purposes in accord with copyright law and/or with permission given by the owners of the original material. You may download one copy of the materials on any single computer for non-commercial, personal, or educational purposes only, provided that you (1) do not modify it, (2) use it only for the duration of this course, and (3) include both this notice and any copyright

notice originally included with the material. Beyond this use, no material from the course web site may be copied, reproduced, re-published, uploaded, posted, transmitted, or distributed in any way without the permission of the original copyright holder. The instructor assumes no responsibility for individuals who improperly use copyrighted material placed on the web site.

**For free tutoring on campus, contact the Learning Center**

(http://fresnostate.edu/studentaffairs/lrc) in the Collection Level (basement level) of the Henry Madden Library. You can reach them by phone at 559.278.3052.

**Our campus has developed SupportNet**

(http://fresnostate.edu/studentaffairs/lrc/supportnet) to connect students with specific campus resources promoting academic success. Students may be referred to it if you believe they need the services provided by SupportNet to succeed in your course.

**SUBJECT TO CHANGE STATEMENT**

This syllabus and schedule are subject to change in the event of extenuating circumstances. Students will be contacted promptly to avoid any inconvenience.

**STUDENT HANDBOOK**

Information on student rights, responsibilities, academic honesty, etc., can be found on the Fresno State Student Handbook web page. The web page is located at: http://www.fresnostate.edu/studentaffairs/division/general/studenthandbook/.

**Tentative Course Schedule: Fall 2019 (Monday, Wednesday courses, and Friday labs): Given on Canvas**