Web Programming CSCI 130

Fall 2022

Course Modality: Face-to-face.	
Course ID number	Instructor: Hubert Cecotti (classes + labs) Rogelio Romero (labs)
Units: 3 Units	Department of Computer Science California State University, Fresno
Class Meeting Location & Time: • Mon-Wed 1-1h50PM (Class) • Thu 8-9h50AM (Labs – Group) • Thu 10-11h50AM (Labs – Group 2)	Email / Telephone: hcecotti@csufresno.edu (subjects must include [CSci130] in the object of the email) redrolo80@mail.fresnostate.edu
Canvas: *fresnostate.instructure.com*	Office: 263 Science 2 / 281 Science 2
Prerequisites: CSci 115	Student Support Hours: Mon-Wed-Fri 10-12am Send me directly an email for meeting on Zoom (https://fresnostate.zoom.us/my/cecotti)

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.

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, and 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 mastering the syntax of the multiple languages that will be covered in this class.*

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

Course goals: 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.

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.

Course requirements/assignments: In this section, list all required work that makes up the total grade for the course, such as quizzes, exams, homework, paper, service hours, project and presentation, etc. Be sure to specify if attendance and/or participation is required and how it impacts student grades.

Instructions for significant assignments: If your course has a project, a paper, or other significant assignment, please give detailed requirements and instructions on how to complete them, such as length, fonts and/or number of references that must be used for the project/paper.

Attendance: Expectations for attendance must be clearly laid out. This is especially important for hybrid and HyFlex classes. In hybrid classes, the dates that attendance in person is required must be clearly specified on the syllabus. In HyFlex classes, is there a limit on how many days a student may attend virtually? (Note: APM 241 requires that all attendance policies be provided to students in the syllabus at the beginning of the semester.)

Grading policy: List how grades are distributed and weighted by assignments to make 100% of the course grade. Your grading policy should include a description of how you calculate grades, if applicable (such as using a grading scale).

Explain exactly how you will calculate the course grades. What will be the point values and weightings for assignments, activities, and examinations? What will be the cut-off points on percent for each grade (e.g., 80-89% is B, etc.)? An optional "Assignment and Examination Schedule" with point values may be an efficient way to transmit some of this information (this is only an example for your reference):

Assignment	**Points/Percent**
Exams (x @ y points each)	
Assignment…	

Letter Grade	**Percent**	**Points**
A		
B		
C		
D		
F		

A grade of ____ or better is required to pass this class.

DIVERSITY STATEMENT

California State University, Fresno considers the diversity of its students, faculty, and staff to be a strength and critical to its educational mission. California State University, Fresno expects every member of the university community to contribute to an inclusive and respectful culture for all in its classrooms, work environments, and at campus events
Respect for Diversity: It is the instructor's intent that students from all diverse backgrounds and perspectives be well served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength, and benefit. It is the instructor's intent to present materials and activities that are respectful of diversity: gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture. Your suggestions are highly encouraged and appreciated. Please let the instructors (classes and labs) know ways to improve the effectiveness of the course for you personally or for other students or student groups. In addition, if any of our class meetings conflict with your religious events, please let the instructor know so that we can make arrangements for you.

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.

Honor Code

Members of the CSU Fresno academic community adhere to principles of academic integrity and mutual respect while engaged in university work and related activities.
Students should:

- understand or seek clarification about expectations for academic integrity in this course (including no cheating, plagiarism and inappropriate collaboration)
- neither give nor receive unauthorized aid on examinations or other course work that is used by the instructor as the basis of grading.

- take responsibility to monitor academic dishonesty in any form and to report it to the instructor or other appropriate official for action.
- do his or her own work. This means that you are not to seek out the help of other students in order to solve specific problems of your assignments (i.e., homework and projects). It also means that you should not sign up for mailing lists and ask for detailed help from others on the net.

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 includes 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).

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:

http://www.csufresno.edu/library/about/policies/docs/copyrtpolicyfull.pdf

Technology Innovations for Learning & Teaching (TILT) 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.

Tardiness

You are expected to **arrive on time** (for lectures and labs) so that you do not cause a disruption in the middle of class. I would like to start the class at the scheduled time. If you cannot make it on time for some reason, please let me know. Persistent tardiness will be noted. In addition, if you are late for a quiz or exam, you will not be given extra time to finish it.

Late submission

Late submissions (no less than 2 weeks) of projects and labs will be accepted. After the deadline, you will be graded on 50% of the total number of points. There will be a factor of 50% applied to your submission. Nothing will be accepted after the last day of instruction. Exceptional circumstances related to health issues will have to be justified by a letter from a physician.

Disruptive 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 and 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**. Please refer to the University Policy on Disruptive Classroom Behavior (APM 419)

More specifically,

- Please turn **silent mode** on all cell phones and electronic devices while you are in lectures and labs. Please do not use headphones or ear phones during lectures and labs.
- *Please do not surf the web, check emails/text messages, or play (online)* ***games*** *during the lecture.*

Students with Disabilities

Upon identifying themselves to the instructor and the university, 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).

If you have any disability that would put you at a disadvantage in performing an

assignment, or in taking an exam, please meet with me privately to discuss ways in which I can assist you as you perform the required work in this course.

Labs

- Lab attendance will be recorded every time. Absent students will not earn lab exercise credits even if lab exercises are turned in (assignments on Canvas).
- You are expected to arrive on time so that you do not cause a disruption in the middle of lab.
- Please bring your laptop for lab sessions. Programming quizzes and lab exercises should be implemented using designated languages. Failure to follow programming quiz or lab exercise requirements will result in zero credit.

Study/Project Expectations

Besides class and lab sessions, it is usually expected that students will spend approximately 2 hours of study time outside of class for every one hour in class. **Since this is a 4-unit class, you should expect to study an average of 8 hours outside of class each week.** Some students may need more outside study time and some less. For free tutoring on campus, contact the Learning Center (www.csufresno.edu/learningcenter) in the Collection Level (basement level) of the Henry Madden Library. You can reach them by phone at 278-3052.

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.csufresno.edu/ITS/) or the University Bookstore. 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.

If there are questions or concerns that you have about this course that you and I are not able to resolve, please feel free to contact the Chair of the department to discuss the matter

- Chair's name: Prof. Alex - Shih-Hsi Liu
- Department name: Computer Science
- Chair's email: shliu@csufresno.edu
- Department phone number: 559-278-4197

UNIVERSITY POLICIES

Students with Disabilities: Upon identifying themselves to the instructor and the university, 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).
The following University policies can be found at:

- Adding and Dropping Classes
- Cheating and Plagiarism
- Computers
- Copyright Policy
- Disruptive Classroom Behavior
- Honor Code
- Students with Disabilities
- Title IX

UNIVERSITY SERVICES
The following University services can be found at:

- Associated Students, Inc.
- Dream Success Center
- Learning Center Information
- Student Health and Counseling Center
- Writing Center

Clearly state your own class policies, concerns, or prohibitions, if any (e.g., talking in class, cell phones, chewing gum, tobacco, wearing baseball caps, reading newspapers in class or other distracting behavior, tape-recording the lecture, bringing visitors, children, or guests, etc.). Are students always expected to work independently, or is collaboration sometimes encouraged? Clearly state when students may or may not work together.

Please review University policies to ensure coherence with any classroom policies: http://www.fresnostate.edu/academics/facultyaffairs/policies/apm/index.html and, in particular, the University Policy on Course Syllabi and Grading (APM 241)

You may wish to remind students "If you are absent from class, it is your responsibility to check on announcements made while you were away." If you intend to grade on participation or tardiness, be explicit in explaining how you will do so.

You should make it clear if you allow the use of audio/video recording of course lectures and the general guidelines for usage of electronic devices (Note: federal and

state laws on student disability supersede your class policy on access to lecture/material).

You may want to include a statement describing appropriate behavior in your classroom, especially if your course includes student discussion of sensitive issues. The University Policy on Disruptive Classroom Behavior (APM 419, www.fresnostate.edu/academics/facultyaffairs/documents/apm/419.pdf) is well worth reading and can be found in the Class Schedule and the Academic Policy Manual. In addition to defining disruptive behavior and detailing formal procedures for dealing with it, the policy contains a useful description of the learning environment.

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 at the final examination and the impact on the student's grade. Please note that APM 232 requires that students be allowed to make up work missed during absences up to a single week for serious and compelling reasons that are documented. Therefore, a policy of "no late work" is out of compliance with policy. APM 241 requires that these make-up policies be described in the syllabus.

Address safety issues if relevant. (labs, hazardous materials, shops, field work, etc.).

The following sections regarding COVID are subject to change given changing circumstances on-campus and in the community. Please check the COVID website for the most up-to-date information at:

covid.fresnostate.edu

Vaccination: All Students who access Campus/Programs must be Fully Vaccinated (including the booster dose when eligible to receive it) in order to participate in any in-person course-related activities (either on-campus or off-campus). Students may select that they will not be participating in any in-person activities (which includes use of the Library, Student Union and/or Student Health & Counseling Center) and/or may attest to a Medical or Religious Exemption from the vaccine policy requirement in accordance with CSU and campus procedures. Students should go to the Student Portal to update their COVID self-certification form and vaccine documentation. Requests for exemptions can be found there. You are not to come to campus if any of the following are true:

- You are not considered fully vaccinated, and you have not attested to a medical or religious exemption.
- You have attested to an exemption, but you have not completed your mandatory weekly COVID-19 test.

Health Screening: Please do not come to campus or off-campus learning site if any of the following is true:

- If you have experienced COVID-19 symptoms (vaccinated or not).
- If you have tested positive within the past 10 days.

Please complete the campus online reporting form (https://covid.fresnostate.edu/cases/reporting.html), and you will then receive further guidance.

Safety Measures: While masks will no longer be required, we strongly encourage their use, as face coverings are still a valuable tool in the fight against COVID-19, especially in large group settings. We fully support and respect those who wish to continue wearing face coverings.
Individuals can pick up face coverings, provided at no cost, at any of the following locations:

- Library
- University Student Union
- Student Health and Counseling Center
- Student Housing Atrium
- COVID Testing Site – check the below website for location

Please see university website for the most updated information:
www.fresnostate.edu/coronavirus

Please remember that the same student conduct rules that are used for in-person classroom instruction also apply for virtual/online classrooms. Students are prohibited from any unauthorized recording, dissemination, or publication of any academic presentation, including any online classroom instruction, for any commercial purpose. In addition, students may not record or use virtual/online instruction in any manner that would violate copyright law. Students are to use all online/virtual instruction exclusively for the educational purpose of the online class in which the instruction is being provided. Students may not re-record any online recordings or post any online recordings in any other format (e.g., electronic, video, social media, audio recording, web page, internet, hard paper copy, etc.) for any purpose without the explicit written permission of the faculty member providing the instruction. Exceptions for disability-related accommodations will be addressed by Student Disability Services working in conjunction with the student and faculty member.

Plagiarism Detection: The campus subscribes to Turnitin, a plagiarism prevention service, through Canvas. You will need to submit written assignments to Turnitin. 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 Originality Reports WILL/WILL

NOT* be available for your viewing. *FACULTY: Please choose for your course WILL or WILL NOT be available for your viewing.

Supplemental Instruction (for courses with Supplemental Instruction, the following statement is recommended by the Learning Center):
Supplemental Instruction (SI) is provided for all students enrolled in this course who want to improve their understanding of the material. SI sessions are led by a student who has already mastered the course material and been trained to facilitate group sessions where students can meet to compare class notes, review and discuss important concepts, develop strategies for studying, and prepare for exams. The SI leader attends this class and communicates regularly with the instructor to ensure that accurate information is given. Attendance at SI sessions is free and voluntary for any student enrolled in this course. Students may attend as many times as they choose.

The Supplemental Instruction (SI) leader and SI schedule for this class are below:

- Name:
- Email:
- SI sessions schedule:

Dispute Resolution: If there are questions or concerns that you have about this course that you and I are not able to resolve, please feel free to contact the Chair of the department to discuss the matter.

Chair's name
Department name
Chair's email
Department phone number

Intellectual Property: All course materials, including but not limited to the syllabus, readings, quiz questions, exam questions, and assignments prepared by the instructor are property of the instructor and University. Students are prohibited from posting course materials online (e.g., Course Hero) and from selling course materials to or being paid for providing materials to any person or commercial firm without the express written permission of the professor teaching this course. Doing so will constitute both an academic integrity violation and a copyright violation. Audio and video recordings of class lectures are prohibited unless I give you explicit permission in advance. Students with an official letter from the Services for Students with Disabilities office may record the class if SSD has approved that service. Otherwise, recordings of lectures are included in the intellectual property notice described above.

Student Ratings of Instruction: In the final weeks of the semester, you will be asked to complete a short survey to provide feedback about this class. The primary goal of student ratings is to help your instructor improve the class. Feedback will also be reviewed by the department chair and the college dean. You will be given 15 minutes of

class time to complete student ratings. Please offer feedback honestly and thoughtfully. Your participation is appreciated. You can access your student rating surveys and get more information at: https://sites.google.com/mail.fresnostate.edu/fresno-state-sri/fssri-for-students.

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- Computers
- Copyright Policy
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- Title IX

University Services

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- Associated Students, Inc.
- Students with Disabilities
- Dream Success Center
- Library
- Learning Center Information
- Student Health and Counseling Center
- SupportNet
- Survivor Advocacy
- Writing Center

Subject to Change Statement

THIS SYLLABUS AND SCHEDULE ARE SUBJECT TO CHANGE IN THE EVENT OF EXTENUATING CIRCUMSTANCES.

Course Calendar

The calendar should include projected dates, topics covered, deadlines, and/or periods of time for readings, field trips, projects, exam dates (including the date and time of the final exam) and assignment due dates. The following statement is suggested to footnote the calendar: “The course schedule is subject to change in the event of extenuating circumstances.”
If you plan to give your exam online or not to meet in class on the final exam day, please explicitly inform students in your syllabus. You also need to address a memo to that effect to your department chair and dean.

Tentative Course Schedule

Class meeting dates for Fall 2022 are Monday-Wednesday 1-1h50pm.
The list of courses is provided on Canvas.