SANTA ROSA JUNIOR COLLEGE

Computer Studies

CS50B: Web Development 2
Section 1384, Fall 2025 Course Syllabus

Instructor: Ethan Wilde (he/him/his), ewilde@santarosa.edu

Course Description

This class offers advanced instruction in client-side Web development technology and design. Students work on project-based assignments using front-end frameworks, such as Bootstrap, and Web content management systems, such as WordPress. An introduction to the JavaScript language is included. Advanced topics in HTML and CSS, including language pre-processors, are presented. User-centered design, user experience research, and search engine optimization practices are explored and practiced with each project.

Recommended Preparation: Eligibility for ENGL 1A (C1000) or equivalent

Prerequisites: Course Completion of CS 50A

Whether you want to become a professional member of a web development team, or just want to create your own personal site, mastery of HTML and CSS is essential to those goals. We will engage in advanced HTML5 and CSS3 work while using the Bootstrap framework, the JavaScript language and the jQuery library, as well as the WordPress Content Management System. You will become proficient in the creation of interactive websites using static files as well as CMS-generated HTML.

Student Learning Outcomes

Students will be able to:

1. Use HTML, CSS, and frameworks that meet current industry standards to create a multipage website that includes accessible content, navigation, and user interfaces.
2. Create a website powered by a web content management system (CMS) that demonstrates best practices of user experience (UX) research, user-centered and responsive design.
3. Understand current accessibility, search engine optimization (SEO), and validation standards and create search-engine-optimized content that adheres to these standards.

At the conclusion of this course, the student should be able to:

1. Describe the process of creating style rules using CSS language preprocessors such as syntactically awesome style sheet (Sass).
2. Analyze and modify an existing website's HTML and CSS using developer tools in a browser.
3. Use a front-end framework such as Bootstrap to create a Web site.

4. Use a Web content management system (CMS) such as WordPress to create a Web site.
5. Produce validated and accessible HTML and CSS documents that are optimized for search engines.
6. Produce a file system structure that matches industry standards.
7. Conduct user research (UX) and design development practices to support user-centered site design.

Topics and Scope:

I. Responsive HTML and CSS Review
   A. HTML semantic and other elements review
   B. CSS language standards and media queries review
   C. Responsive Web design (RWD) review
II. Front-End Frameworks
   A. Introduction to common front-end framework concepts and practices: styles, classes, and components
   B. Creating responsive user interfaces using framework components
   C. Framework typography and content support
   D. Working with images and rich media via frameworks
   E. Navigation interfaces using framework components
   F. Interactive interfaces using framework components
   G. Web form composition using framework components
   H. Decorative content and icon font libraries
III. Web Content Management Systems
   A. Introduction to common CMS concepts and practices: content, users, navigation, themes
   B. Page-based and recurring content elements
   C. Multi-user authentication systems
   D. Navigation menus and links
   E. Presentation layer access and theme modification
   F. Functionality extensions: plug-ins
   G. Custom theme creation
   H. CMS-based site development, production, and maintenance best practices
   I. CMS file system organization
IV. Introduction to JavaScript
   A. Language basics, including keywords and syntax
   B. JavaScript event model, including browser and user-triggered events
   C. Calling pre-existing JavaScript code, including jQuery library and Bootstrap JavaScript library
V. Advanced Styling with CSS Language Preprocessors
   A. CSS Language Preprocessors: Sass and Less
   B. Capabilities provided by language preprocessors
   C. Workflows using language preprocessors
VI. Search Engine Optimization
   A. Technical best practices for SEO, including HTML coding
   B. Content-related practices for SEO, including marketing
   C. Evaluating SEO with analytics
VII. User Experience (UX) Research

A. Remote testing tools and practices
B. Card sorting and taxonomy research
C. User definitions: personas, interviews, stories of use, and journey mapping
D. User-centered design principles and practices

VIII. Design Prototyping
A. Interactive prototype creation and tools
B. Prototype testing practices
C. Iterative prototyping

IX. Professional Practices
A. Project documentation practices
B. Site backup and migration practices for CMS-powered sites
C. Introduction to automated version control tools and practices
D. Review of code validation practices

Assignments:

1. Textbook and other assigned reading (25-60 pages per week)
2. Web page assignments (7-15). All HTML and CSS code submitted must be validated.
3. Midterm static HTML project and final CMS-powered project (2). Each project must include:
   A. At least seven pages
   B. A navigation system
   C. HTML elements
   D. CSS styles
   E. Rich media elements, including images, audio, and video elements
   F. Links using relative and absolute paths
   G. Fully validated and accessible code
   H. Project documentation
4. Quizzes and exams (2-4)
5. Discussions (5-8). Conducted in-class or online with participation from all students.
6. Project presentations and peer feedback (2). Each student must present their project to classmates, either online or in-class, and provide feedback to at least two peers. May be ungraded.

Course Outline of Record

You may find the official course outline of record for this course at the following link: https://portal.santarosa.edu/srweb/SR_CourseOutlines.aspx?ck=CS50B

Note: if this Canvas course website happens to be shared by multiple sections, student names and coursework may be visible to students in both sections.

Class Meetings

Fall 2025 Schedule

Class Delivery	Day and Time	Modality
Online Meetings	Weeks start on Tuesdays	Canvas
Live weekly Web conference https://santarosa-edu.zoom.us/j/135129123	Tuesdays, 11:45am - 12:45pm	Zoom

All class materials for each module will be released online in Canvas on Tuesdays throughout the entire semester. A live online meeting will be held on Tuesdays via Zoom. Attendance at the live web conferences is highly recommended. Every student must either attend the live web conference or watch the entire screencast recording of the web conference. To view any recorded screencasts, visit the Screencast page for any module in the Modules section.

Instructor Contact

Ethan Wilde

Email: ewilde@santarosa.edu

Phone: 707-527-4855

Fall 2025 Office Hours
August 18 – December 8, 2025

Day	Time	Location
Mondays (online)	8:00am - 2:40pm	Online: Zoom meeting ID 950-229-0128 or pre-arranged alternative via email ewilde@santarosa.edu

» Reserve a future office hour appointment

I typically respond to emails within 48 hours, weekends excepted. I never respond on Sundays.

Course Web Site

Students will use the Canvas course web site to access all course content, for reading, assignment instructions, submitting assignments, viewing classmates' work, sharing resources, and viewing grades. *The Google Chrome browser is recommended for viewing the Canvas-powered course site. Other browsers are not well-tested by the Canvas LMS developers, so problems with Canvas are more likely.*

Textbooks

Beyond Vibe Coding (early release)
Addy Osmani
No ISBN available yet
Free eBook available via SRJC Libraries

WordPress 5 Complete (7th)
Karol Król
978-1789532012 (ISBN 13)
Free eBook available via SRJC Libraries
Publisher book site available

The Field Guide to Human-Centered Design (1st)
IDEO.org
978-0991406319 (ISBN 13)
Free PDF eBook available for download

The required textbooks are available online without cost.

If you would like a printed copy, you can locate and order books online via the SRJC Bookstore and other resellers.

Students are also required to read many original written passages from the instructor and articles written by other authors. Students are also required to watch a collection of streaming videos. All content for reading and watching is available without cost via our Canvas-based course website.

Learning Resources

Students are also required to watch a collection of streaming videos. All content for reading and watching is available without cost via our Canvas-based course website.

In addition to the streaming videos and textbooks mentioned above, students will use the following online guided text- and/or video-based learning resource. This resource is necessary because the team at Figma changed the user interface of their Figma Make software in 2024 and to date, there are still no textbooks that cover the new user interface. If you face any accessibility issues using this resource, please contact the instructor for assistance.

Figma Design for beginners guided text or video series
Figma Help and YouTube
Free text-based course available on Figma Help
Free video playlist available on YouTube

No purchase necessary. This text and/or video series is available online without cost via Figma's Help site and YouTube channel.

Equipment

- **A personal computer**, either at home, work or on the Santa Rosa or Petaluma campuses.

Required Software + Services

- **Internet access**
- **Web browsers** including
  - Google Chrome recommended and typically used in instructor demos
  - Mozilla Firefox recommended
- **Integrated Development Environments (IDE)**
  - Microsoft Visual Studio Code strongly recommended
  - Cursor *using free or student education Pro-level account*
  - Replit.com optional for all students. *You may create a free account for Replit.com.*
- **Hosting service for static sites**
  - SRJC Student Hosting Server required for all students to host class assignments.
- **File Transfer Protocol (FTP) software** such as
  - CyberDuck (Mac OS and Windows, free license)
  - Fetch (Max OS only)
  - WinSCP (Windows only)
- **CMS Cloud hosting, version control + development environment service**
  - Pantheon required for all students, starting in Week 10, for hosting WordPress-based assignments in the second half of the term. *Instructions will be provided for setting up your free account later in the term.*
- **Prototyping, UX design, and collaboration software**
  - Figma Design (browser-based and desktop versions available) required for all students. *Instructions will be provided for setting up your free account later in the term.*
- **Graphics and prototyping software** such as
  - Adobe Photoshop, part of a Creative Cloud subscription (optional)
  - Pixlr browser-based image editor
  - Drawio.com browser-based drawing app
- **PDF display software** such as
  - Adobe Reader

Optional Software

The additional software listed below is often used for Web development.

- **Additional Web browsers** including
  - Apple Safari (Mac OS only)
  - Microsoft Edge (Windows 10 only)
- **Code editor** such as
  - Phoenix Code
  - BBEdit (Mac OS only)
  - Sublime Text (Windows, Mac OS, Linux)
- **GUI-based Git repository manager**
  - GitHub Desktop

Important Dates

Day Class Begins: Monday, August 18, 2025
(first course module begins with class meeting on August 19, 2025)

Day Class Ends: Friday, December 19, 2025
(last class meeting is on December 9, last day to submit final exam or any late work is December 19, 2025)

Last Day to Drop with refund: Sunday, August 31, 2025

Last Day to Add with instructor's approval: Sunday, September 7, 2025

Last Day to Drop without a 'W' symbol: Sunday, September 7, 2025

Last Day to Drop with a 'W' symbol: Sunday, November 16, 2025

Last Day to Opt for Pass/No Pass: Friday, December 12, 2025

Dropping the Class

If you decide to discontinue this course, it is your responsibility to officially drop it. A student may be dropped from any class when that student's absences exceed ten percent (10%) of the total hours of class time. It is strongly advised that if you need to miss more than one class/homework deadline in a row that you contact the instructor to avoid being dropped from the class.

Attendance

Students who fail to complete the requirements of the first and second class modules may be dropped by the instructor. **Students must view and participate in online materials released each week in the Modules section of the course Canvas website.**

Pass-NoPass (P/NP)

You may take this class P/NP. You must decide before the deadline, and add the option online within your student portal or file the P/NP form with Admissions and Records. With a grade of C or better, you will get P.

You must file for the P/NP option by December 12, 2025. Once you decide to go for P/NP, you cannot change back to a letter grade. If you are taking this course as part of a certificate program, you can probably still take the class P/NP. Check with a counselor to be sure.

Instructor Announcements

The instructor will post announcements on the "Announcements" page in Canvas throughout the semester. Canvas notifies students according to their preferred Notification Preferences.

Late Policy

Please make a plan before the course starts to allow yourself the necessary time each week to complete the required reading, watching, online discussion posting, and assignments. The official Course Outline of Record for this three-unit semester-length course stipulates that each student is expected to complete 157.5 hours of learning for the class. This works out to 9 hours per week for each of the 17 weeks of regular instruction along with 4.5 hours for Finals Week. If you plan accordingly, you can avoid submitting assignments late.

All assignments are due at 11:59pm Pacific time on the **Monday** corresponding to the due date. A late submission will receive a 10% penalty for each week it is late. Submissions more than two weeks late are not accepted without prior written arrangement.

Exams

There will be online midterm and final exams. The material comes from the textbooks, class lectures and supplemental materials. If any exam is missed, a zero will be recorded as the score, unless you have made prior written arrangements with me. It is your responsibility to take the exams by the due date.

Grading Policy

Click the "Grades" link in Canvas to keep track of your grades. I grade once a week and post grades and comments in the Canvas gradebook.

Letter Grade	Percentage	Points Total
A	90% - 100%	900 points or more
B	80% - 89%	800 to 899 points
C	70% - 79%	700 to 799 points
D	60% - 69%	600 to 699 points
F	59% or lower	599 points or less

If taking Pass/No Pass you need at least 70% of the total class points and to complete the midterm exam and the final exam to pass the class.

Grading Breakdown

Percent	Points	Grading Category
62%	620 points	**Projects + Assignments**
12%	120 points	**Discussions + Attendance**
6%	60 points	**Quizzes**
10%	100 points	**Midterm**
10%	100 points	**Final Exam**
100%	1000 points	**1000 points possible**

Standards of Conduct

Students who register in SRJC classes are required to abide by the SRJC Student Conduct Standards. Violation of the Standards is basis for referral to the Vice President of Student Services or dismissal from class or from the College. See the Student Code of Conduct page.

Collaborating on or copying of tests or homework in whole or in part will be considered an act of academic dishonesty and result in a grade of 0 for that test or assignment, except for assignments that allow collaboration. Students are encouraged to share information and ideas, but not their work.

Generative Artificial Intelligence (AI)

Unless an assignment explicitly states otherwise, use of generative AI tools is not allowed in this course. Please do not use any generative AI tool to assist you in any homework assignment in this course that does not ask you to use such tools. In almost every case, the use of content created by generative AI tools in your homework is considered a form of plagiarism.

What's a generative AI tool? Any software that creates code or content based on large language models. These include, but are not limited to:

- Microsoft CoPilot
- Google Bard/Gemini
- OpenAI ChatGPT
- GitHub CoPilot
- Meta.ai
- Replit.com AI Agent or Ghostwriter

See these links on plagiarism:

- SRJC's Statement on Academic Integrity
- SRJC Board Policy 8.2.8

I expect each student to maintain high standards of civility and respect when communicating with each other. The following rules of netiquette should be observed in all class discussions and communications:

- Be kind and respectful to others
- Use full sentences
- Avoid jargon and acronyms
- Use language that supports others

Special Needs

Every effort is made to conform to accessibility standards for all instructor-created materials. Students should contact their instructor as soon as possible if they find that they cannot access any course materials. Students with disabilities who believe they need accommodations in this class are encouraged to contact Disability Resources by calling (707) 527-4278 or visit online at drd.santarosa.edu.

Student Health Services

Santa Rosa Junior College offers extensive health services to students. Visit Student Health Services online at shs.santarosa.edu or call them at (707) 527-4445.

Course Outline

Start Date	Canvas Module	Topics	Assignments
8/19	Week 1	Responsive HTML5 and CSS3 + Review	• Hosting Signup Survey • Assignment 1: Syllabus Quiz • Discussion 1: Check-in Discussion • Reading: "Responsive Web Design"
8/26	Week 2	Introduction to the Bootstrap Framework: the Responsive Grid	• Assignment 2: Bootstrap Basics • Reading: online
9/2	Week 3	Bootstrap Typography + Basic Components	• Assignment 3: Human-Centered Page • Discussion 2: Design Thinking • Reading: online
9/9	Week 4	Bootstrap Navigation	• Assignment 4: Responsive Navigation • Reading: online

Start Date	Canvas Module	Topics	Assignments
9/16	Week 5	More Bootstrap Components + Decoration	• Assignment 5: Feedback + Decoration • Discussion 3: Interaction Design • Reading: online
9/23	Week 6	Forms + Customizing Bootstrap CSS	• Assignment 6: Restyling Bootstrap • Quiz 1 • Reading: online
9/30	Week 7	Introduction to JavaScript	• Assignment 7: First Scripts • Discussion 4: Agile Workflow • Reading: online
10/7	Week 8	Bootstrap + JavaScript	• Midterm Project: Interactive Catalog • Reading: online
10/14	Week 9	Midterm Review	• Midterm Exam • Discussion: Midterm Project Presentations

Start Date	Canvas Module	Topics	Assignments
10/21	Week 10	WordPress 1: Introduction to CMS	• Assignment 8: Setting Up WordPress • Discussion 5: Content Management Systems • Reading: *WP Complete,* Chs. 1 + 2
10/28	Week 11	WordPress 2: Posts	• Assignment 9: Creating Content • Reading: *WP Complete,* Ch. 3
11/4	Week 12	WordPress 3: Pages, Menus + More	• Assignment 10: Site Building • Discussion 6: Final Student Project Proposals • Reading: *WP Complete,* Ch. 4
11/11	Week 13	WordPress 4: Plug-ins, Widgets + Themes	• Assignment 11: Extending Your Site • Quiz 2 • Reading: *WP Complete,* Chs. 5 + 6
11/18	Week 14	WordPress 5: Custom Bootstrap Theme	• Assignment 12: Building a Custom Theme • Discussion 7: Sass + CSS Preprocessors • Reading: *WP Complete,* Ch. 8

Start Date	Canvas Module	Topics	Assignments
11/25	Week 15	Introduction to Sass: CSS Preprocessor	• Assignment 13: Sass Basics • Reading: online
12/2	Week 16	Customizing Bootstrap's Sass Rules	• Assignment 14: Remixing Bootstrap with Sass • Discussion 8: Final Student In-Progress Projects • Reading: online
12/9	Week 17	Mastering Sass + Bootstrap Final Review	• Final Project: Student-Defined Site • Reading: online
12/15 Mon – 12/19 Fri	Week 18	No Regular Class *(Exam online, no regular class meeting)*	• Final Exam *(due 12/19)* • Discussion: Final Project Presentations

Note to online students: the assignments listed above will become available as modules are released in sequence each week. To view course content, go to **Modules**.