

# CS50C: Web Development 3

## Section 5371, Spring 2017 Course Syllabus



**Instructor:** Ethan Wilde, [ewilde@santarosa.edu](mailto:ewilde@santarosa.edu)

### Course Description

Students will use HTML, CSS, & JavaScript to produce powerful interactive web content. Topics include semantic elements, forms, canvas, audio, video, geolocation. Students will create responsive websites using a grid-based Bootstrap framework.

**Recommended Preparation:** Eligibility for ENGL 1A or equivalent

**Prerequisites:** Course Completion of CS50B

*Students in CS50C will take an active role in their knowledge acquisition, "learning to learn." Principles of Pair Programming and advanced topics in Web development will be introduced with individual and group-based research and assignments. Skills developed will include Web development for mobile, tablet, and desktop environments, including gesture-based input events.*

### Student Learning Outcomes

**Students will be able to:**

1. Use HTML Markup to create interactive web content.
2. Evaluate current browser support for various HTML features.
3. Decide when and how to use HTML5 features and the implications on the architecture.

**Upon completion of the course, students will be able to:**

1. Build web pages using HTML5 code.
2. Explain the major benefits of HTML5.
3. Compare and contrast HTML5 and HTML4.
4. Incorporate HTML5's new elements and attributes into websites.
5. Utilize HTML5 to incorporate semantic elements.
6. Develop web pages using HTML5's new, audio, video elements.
7. Produce code which uses the canvas element to create code-based drawings and animations.
8. Analyze and implement code to create Web Storage for offline applications.

9. Use new HTML5 form elements.
10. Develop web content that utilizes the geo-location elements in HTML5.
11. Discuss web site accessibility issues and implementations.
12. Utilize Bootstrap to style forms, tables, and navigational elements.
13. Utilize Bootstrap to create responsive designs which work well with mobile devices.

### **Topics and Scope:**

1. Introducing HTML5 (HyperText Markup Language)
2. HTML5 New Features
3. Creating HTML5 Documents
4. Structuring HTML5 Documents
5. Building Forms in HTML5
6. HTML5 API Support
7. Associated Technologies
8. Compatibility Testing
9. Responsive Web Design
10. Accessibility

### **Assignments:**

1. Read approximately 25 pages per week of online reading assignments
2. Create 10-12 original coding assignments utilizing technologies covered, incorporating each into a web-based experience
3. Quizzes, midterm and final exam
4. Project critiques
5. Participation in electronic message board discussions (online only classes)

## **Class Meetings**

### **Spring 2017 Schedule**

Online	Weeks start on Tuesdays	Canvas shell
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*All class materials for each module will be released online in Canvas on Tuesdays throughout the entire semester.*

## **Instructor Contact**

### **Ethan Wilde**

Email: [ewilde@santarosa.edu](mailto:ewilde@santarosa.edu)

Phone: [707-527-4855](tel:707-527-4855)

## Spring 2017 Office Hours

**January 17 – May 19, 2017**

Tuesdays	3:45pm - 4:45pm	Maggini 2937
Wednesdays (Online)	8:00am - 10:00am	Online: Email <a href="mailto:ewilde@santarosa.edu">ewilde@santarosa.edu</a> or Skype ethanwilde
Wednesdays	10:30am - 11:50am	Maggini 2937
Wednesdays (Online)	12:00pm - 1:00pm	Online: Email <a href="mailto:ewilde@santarosa.edu">ewilde@santarosa.edu</a> or Skype ethanwilde

I respond to emails within 48 hours. I never respond on Sundays.

## Course Web Site

Students will use the Canvas course web site for 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. Internet Explorer is not recommended.*

## Textbook

This course uses assigned reading from online sources.

## Equipment

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

## Required Software + Services

- **Internet access**
- **Web browser**
  - [Google Chrome](#) strongly recommended
- **Text editor**, for Week 1 only, such as:
  - [TextWrangler](#) (Mac OS only)
  - [Brackets](#) (Windows, Mac OS)
  - [Sublime Text](#) (Windows, Mac OS, Linux)
- **Cloud hosting + development service**
  - [Cloud9](#) IDE (Integrated Development Environment) required for all students, starting Week 2, for hosting class assignments. This service provides a complete set of browser-based tools in place of the optional software listed below. *Complete the hosting survey to get your free account.*
- **Graphics software** such as:
  - Adobe Photoshop, part of a [Creative Cloud](#) subscription
  - [Gimp](#) open source application
  - [Pixlr](#) browser-based image editor
- **PDF display software** such as:

- [Adobe Reader](#)

## Optional Software

The additional software listed below is often used for Web development. Our cloud-based IDE – Cloud9 – will provide a text editor and file transfer support without any additional software needed.

- **Additional Web browsers** including:
  - [Mozilla Firefox](#)
  - Apple Safari (Mac OS only)
  - Microsoft Edge (Windows 10 only)
- **File Transfer Protocol (FTP) software** such as:
  - [FireFTP](#) add-on for Firefox browser (free)
  - [Fetch](#) (Mac OS only)
  - [WinSCP](#) (Windows only)

## Important Dates

**Day Class Begins: Tuesday, January 17, 2017**

Day Class Ends: Friday, May 19, 2017

Last Day to Add without instructor's approval: Sunday, January 22, 2017

Last Day to Drop with refund: Sunday, January 29, 2017

Last Day to Add with instructor's approval: Sunday, February 5, 2017

**Last Day to Drop without a 'W' symbol: Sunday, February 5, 2017**

**Last Day to Opt for Pass/No Pass: Sunday, February 26, 2016**

**Last Day to Drop with a 'W' symbol: Sunday, April 23, 2017**

## 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

For online courses, students who fail to complete the requirements of the first and second class modules will be dropped by the instructor.

## Pass-NoPass (P/NP)

You may not take this class P/NP, only for a letter grade.

# Instructor Announcements and Q&A Forum

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

## Late Policy

All assignments are due at 11:59pm PST 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 assigned reading, 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.

Grades will be assigned as follows:

<b>A</b>	90% - 100%	900 points or more
<b>B</b>	80% - 89%	800 to 899 points
<b>C</b>	70% - 79%	700 to 799 points
<b>D</b>	60% - 69%	600 to 699 points
<b>F</b>	59% or lower	599 points or less

## Pass-NoPass (P/NP)

You may take this class P/NP. You must decide before the deadline, and add the option online with TLC 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 **Sunday, February 26, 2016**. Once you decide to go for P/NP, you cannot change back to a letter grade.

If you are taking this course to complete one of the SRJC CS Department Web Development Certificates, **you must take the class for a letter grade.**

## Grading Breakdown

<b>62%</b>	620 points	<b>Projects + Assignments</b>
<b>12%</b>	120 points	<b>Discussions + Attendance</b>
<b>6%</b>	60 points	<b>Quizzes</b>
<b>10%</b>	100 points	<b>Midterm</b>
<b>10%</b>	100 points	<b>Final Exam</b>
<b>100%</b>	1000 points	<b>1000 points possible</b>

## 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. Students are encouraged to share information and ideas, but not their work. See these links on Plagiarism:

[SRJC Writing Center Lessons on avoiding plagiarism](#)

[SRJC's statement on Academic Integrity](#)

## 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](http://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](http://shs.santarosa.edu) or call them at (707) 527-4445.

## Course Outline

	<b>Topics</b>
Week 1	Introduction
Week 2	Polyfills + Browser Capabilities
Week 3	No Class

Week 4	No Class
Week 5	Multimedia (Audio + Video)
Week 6	Accessibility
Week 7	Mobile Browsers
Week 8	CSS Animations + Transitions
Week 9	CSS Flexbox Midterm Review + Midterm Exam
Week 10	SVG
Week 11	JavaScript Essentials, Part 1
Week 12	JavaScript Essentials, Part 2
Week 13	Progressive Enhancement with Modernizr
Week 14	Canvas Element
Week 15	Web Storage + IndexedDB
Week 16	Geolocation
Week 17	JSON via XHR + Structured Data
Week 18	Final Exam (No Regular Class)

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