

# CSE 154 Course Syllabus - Autumn 2023

## Course Goals

CSE 154 is an introduction to programming for the World Wide Web and the technologies that support it. The course is one part practical: you will learn how to use the tools and technologies to build websites. It's also one part theoretical: you'll learn how and why many of these technologies work. And it's one part creative: you'll get an opportunity to design and explore creative ways of building a website. By the end of this course, you will learn about the "full stack" of programming for the Web. In learning these technologies, you will also:

- Practice reading detailed specifications and writing readable, well-documented, and structured code.
- Learn how to appropriately search for and evaluate solutions to common web programming problems.
- Have an opportunity to develop an individual portfolio of creative web sites.
- Learn at a high level how the Internet and the Web work via client-server interactions.
- Practice working with professional development tools (e.g., Git, VSCode) and practices (e.g., strict code quality guidelines, accessibility).

CSE 154 moves *fast*. Every topic we explore has enough material for an entire course in its own right. This course will give you a solid foundation on which to build future Web Programming experiences.

## Modules

This course is organized into **five modules**. You will have 9 programming assignments for this course: four Creative Projects in which you have freedom to explore the module's technology, four rigorous "take-home" programming homework assessments, and one final project to be completed with a partner.

These modules each introduce a key web programming technology:

1. Web page **structure and appearance** with HTML5 and CSS
2. Client-side **interactivity and behavior** with JavaScript
3. Using web services (APIs) **on the front-end** with asynchronous JavaScript
4. Writing web services with **server-side** JavaScript via Node.js
5. Storing and retrieving information in a **database** with SQLite

By the end of the course, you will be able to write a simple "full-stack" website with web pages, client-side code, server-side code, and a database, with a variety of other important web programming concepts and technologies (including Git version control, code quality guidelines in multi-language projects, accessibility, and form validation).

## Course Organization

We have structured the course so that spending a few hours per day will maximize your efficiency. Why?

- You will work this way in the real world — you cannot cram a 10-week development project into a single day — so you may as well work this way now.
- You will understand the material better, especially since we are covering various languages and technologies (it will feel like a lot at first, but you'll get better with practice!)
- If you leave the homework for the day before it is due you will not have time to ask questions when (not if) the software misbehaves. In most circumstances, accommodations will not be made for technical difficulties the night of an assignment deadline

That said, we do our best to keep this course a standard 5-credit workload, and you are welcome to talk with the instructor about different study strategies if you find yourself falling behind. We also offer a ton of resources, so take advantage of them early!

Each week, there will be 3 lectures (Monday, Wednesday, Friday), and two TA-led sections (Tuesday and Thursday).

## Lectures

Lectures are designed to introduce new material throughout the quarter, motivate key concepts, and demonstrate web development strategies. New material will be introduced in each lecture, and it will be quite easy to fall behind if you miss a class. We encourage questions in lecture - questions help the instructor gauge where students are at, and it is usually the case that many students share the same question. All students are expected to attend and participate during lecture.

## Sections

On Tuesdays and Thursdays, you will participate in section, held at various times (see [MyUW](#) for details). We will spend the 50 minutes discussing sample problems in more detail than we can in lecture, completing practice exercises, answering questions, and going over common errors in homework solutions. All students are expected to attend and participate during section.

### Attendance in Sections

You should only attend the Sections that you are enrolled in. Attending alternate sections can be disruptive to the TA and the other students in the class. However, if there is a one time change - i.e. a Very Important Appointment That You Can Not Miss - you must email both your TA **and** the TA for the temporary section at least 24 hours in advance of the first section time to get approval from both TAs.

## Grading, Assignments, & Assessments

Assignment grades will be available in the course's Gradescope. Please contact your TA or the instructor if something has been recorded incorrectly. If you feel something has been graded incorrectly, please see the [re-grade policy](#) below.

Graded work will receive categorized point values, with the following categories and their respective weights:

- 50% [Homework Assignments](#)
- 30% [Creative Projects](#)
- 15% [Final Project](#)
- 5% [Active Participation](#)

Your percentage in the class maps to the 4.0 scale roughly as follows. You will get *at least* the grade below for the percentage shown:

90%: at least 3.5	85%: at least 3.0	80%: at least 2.5
75%: at least 2.0	70%: at least 1.5	60%: at least 0.7

## Homework (HW) Assignments

The homeworks are larger programming projects that are your opportunity to demonstrate to us that you are able to put into practice the topics we've taught in class. You are expected to follow the assignment

specification *exactly*, adhere to the relevant sections of the course's [Code Quality Guide](#), and address feedback given on past assignments.

The Homework Assignments are graded along three dimensions:

- **External Correctness (~45%)** : behavior and appearance, as required by the spec
- **Internal Correctness (~45%)**: code quality and use of language features, as required by the spec
- **Documentation (~10%)**: e.g., good file and function header comments

(Percentages given are approximations. The exact number of points for each category **will** vary by assignment.)

## Creative Project (CP) Assignments

The Creative Projects (CPs) are your opportunity to explore the current course material in a free-form manner. There are **minimum** requirements per assignment, but they are just that, minimums: you are free to do more (but do not have to) and explore additional ideas.

Each of your Creative Project submissions do not have to be built from nothing every time. You are encouraged to build upon your previous work, such that your last CP is a full-stack version of the first. This is not required though: after each CP's minimum requirements are met, you may do whatever you like.

## Final Project

There will be one Final Project for the course meant to be completed in pairs. The project will be due at the end of the quarter with various milestones due throughout. The final exam period will be used as the final project showcase where attendance will be **required**.

## Participation

Your grade will be directly affected by lack of participation. Being actively engaged gives you the opportunity to ask questions as they come up. Active participation opportunities will be assessed both in lecture and in section and are graded based on effort, not correctness meaning that as long as you are present and giving the work your best effort, you will get full credit. To get the full 5% of active participation, you must complete at least 80% of all active participation assignments throughout the duration of the course.

## Late Submissions

Homework and Creative Projects will all be submitted through Gradescope and GitLab (set up in Week 1). It is your responsibility to ensure that your turn-in is successful and on time.

All assignments are due at 11:59pm (Seattle-local time) on the specified day.. You are expected to have your work turned in on Gradescope by this time regardless of where you are residing this quarter. If this is a concern, you should reach out to the instructor as soon as possible.

Each student starts with 4 "late days" to use on either CP or HW throughout the quarter. *Late days **cannot** be applied to any of the final project submissions.* Each late day allows you to submit an assignment up to 24 hours late without penalty. Once you've used up all late days, a late submission will result in the following deductions:

- Homeworks: 2.5 points for each day
- Creative Projects: 1 point for each day

Regardless of how many late days you have, you may not submit a program after the "lock date" (usually 1 day after the regular due date).

Late days **can not be used on the final project** (for the final submission or any of the milestones).

## Regrade Policy

It is possible for the graders to make mistakes. All regrade requests must be submitted on Gradescope, and will generally be opened 24 hours after grades are published and will be available for one week after grades for the assignment are released. **Do not email your TA or the instructor about a re-grade without submitting the request on Gradescope first.**

Re-grade requests must reference the relevant criteria point or question and explain why your approach or answer does actually meet the requirements.

In all cases, regrade requests:

- may result in the entire assignment being re-graded, with points adjusted accordingly.
- can only be made for an assignment that has already been submitted and graded.
- must be submitted during the open window for that assignment (generally for a week after grades are released).

## Expectations

### Communication

You, the student, are expected to...

- Check the course website daily for announcements, and assignments.
- Use our Ed message board for discussions.
- Read emails that are sent to the course list.
- Respond to direct emails in a timely manner.
- Ask questions! Particularly if part of an assignment or assessment is unclear.
- Ensure that all assessments and assignments are successfully submitted to Gradescope on time.

The instructor will...

- Do their best to make assignments and assessments clear and accurate.
- Do their best to respond to student emails within 24 hours on weekdays, 48 hours on weekends.

### Attendance and Punctuality

You are expected to attend all classes this session. The goal is to incorporate active learning where appropriate in this class to support an engaging environment, giving you the opportunity to practice key problem-solving strategies, interact with peers, and ask questions of the instructor and TAs.

All students are expected to be in class before the assigned class time as lecture and section will begin on time. If you do arrive late, please respect the learning of other students and ensure you move quickly and quietly to your seat to reduce distracting the class. Do the best to catch up if we are in a direct instruction (lecture) portion, and ask for additional information and help if you need during office hours.

## Getting Help

Outside of lectures and sections, there are a few ways to ask questions or discuss course issues:

- Office hours
- Discussion board

## Office Hours

Office Hours are dedicated times that we have for you to come and ask questions or get help. These times are for you and are valuable time to get your specific questions addressed.

Office hours with the instructor and the TAs are open for drop-in. Visit during the posted times or email the instructor to make an appointment. Office hours will have their location clearly labeled on the OH calendar.

Make sure to follow these guidelines and expectations for in-person office hours

- Come prepared to explain what you have tried and what still is unclear so that we can tailor the response to best support your learning.
- You should keep your code to yourself as work needs to be completed individually but you are welcome and encouraged to discuss concepts with your peers.

## Discussion Board

Post questions on the course discussion board. Make sure to follow these guidelines for the discussion board:

- All questions in Ed should use the "Question" label (instead of "Post")
  - For administrative questions, select the "General" category
  - For questions about lecture or section material, select the "Lecture" category
  - For questions on Creative Projects or Homeworks, select the appropriate sub-category
- Do not post any part of your homework solutions on the message board. This includes all or part of a solution to an assignment, including "just" a description of your solution to an assignment (such as pseudo-code), even to ask what is wrong with it. Detailed debugging is best handled in office hours.
- Questions will not be answered immediately. Response times will vary and may take an hour or more
- For more sensitive questions, you may choose to post a private question that only the instructors and TAs will see. Email the instructor or your TA directly if you feel you can't post to the discussion board
- The course staff reserves the right to remove or make any post private.

## Extenuating Circumstances

We recognize that all students have unique backgrounds and will experience a wide range of circumstances. We also recognize that online learning and the state of the world broadly lead to unique situations and challenges arising. Whether it's due to balancing work, military duty, family responsibilities, required travel, there are many extenuating circumstances that arise -- beyond your control -- which may negatively affect your performance in class.

In many cases, we can help or provide flexibility, **but we must know as soon as possible**. Contact the instructor by email, office hours, or a private Ed post to discuss any extenuating circumstances.

## Inclusion Statement

You all belong in this class and as such should expect to be treated by your classmates and the course staff with respect. It is our goal, as the course staff, to provide an interesting and challenging environment that is conducive to your learning. If any incident occurs that challenges this commitment to a supportive and inclusive environment, please let the instructor know so the issue can be addressed.

## Expected Behavior

The Association for Computing Machinery (ACM) has a set of guidelines for expected behavior as part of their [Policy Against Harassment at ACM Activities](#). The ACM's description of expected behavior is as follows:

- Exercise consideration and respect in your speech and actions

- Refrain from demeaning, discriminatory, or harassing behavior and speech
- Be mindful of your surroundings and your fellow participants
- Alert community leaders (in this case, the instructor or course staff) if you notice a dangerous situation, someone in distress, or violations of this policy, even if they seem inconsequential

ACM's policy also has a detailed description of unacceptable behavior on the same page.

## Academic Conduct

Integrity is a crucial part of your character and is essential for a successful career. We expect you to demonstrate integrity in CSE 154 and elsewhere.

The Paul G Allen School has an entire page on [Academic Misconduct](#) within the context of Computer Science, and the University of Washington has an entire page on how [Academic Misconduct](#) is handled on their [Community Standards and Student Conduct Page](#). Please acquaint yourself with both of those pages, and in particular how academic misconduct will be reported to the University.

We evaluate your academic conduct in this course within at least the areas described in detail below:

- [Honesty in communication](#)
- [Web Page Content](#)
  - [Copyrights and citations](#)
- [Collaboration policy](#)
- [Creative Projects](#)
- [Privacy policy](#)

## Honesty in Communications

We expect all students to be honest and forthcoming in communications with course staff and other students.

## Web Page Content

### School Appropriateness of Content

Recall that one of our course policies is to create and maintain an [inclusive](#) environment. As such it is important that you are thoughtful about what you choose to post on your page. Please make sure that the images and text you are using are "school appropriate" and follow the guidelines of expected behavior. If you have any questions, please do not hesitate to ask a TA or your instructor. Inappropriate submissions may be ineligible for credit on that assignment.

### Copyright and Citations

All of the expressions of ideas in this class that are fixed in any tangible medium such as digital and physical documents are protected by copyright law as embodied in title 17 of the United States Code. These expressions include the work product of both: (1) your student colleagues (e.g., any assignments published here in the course environment or statements committed to text in a discussion forum); and, (2) your instructor (e.g., the syllabus, assignments, reading lists, and lectures). Within the constraints of "fair use," you may copy these copyrighted expressions for your personal intellectual use in support of your education here in the UW. Such fair use by you does not include further distribution by any means of copying, performance or presentation beyond the circle of your close acquaintances, student colleagues in this class and your family. If you have any questions regarding whether a use to which you wish to put one of these expressions violates the creator's copyright interests, please feel free to ask the instructor for guidance.

The essence of academic life revolves around respect not only for the ideas of others, but also their rights to those ideas. It is therefore essential that we take the utmost care to handle the ideas (and the expressions of those ideas) of others always appropriately, and, where necessary, provide citations. When ideas or materials of others are used (particularly in your creative projects), they must be cited. The citation format is not that important - if the source material can be located and the citation verified, it's OK. In any situation, if you have a question, please feel free to ask.

You must have the right to publish any of the images, videos, text, or other media on your creative sites. This means you may use:

- Media you have created or generated yourself (i.e. pictures you have created or taken yourself, text you have written yourself)
- Images that are in the public domain (something from Wikipedia), or something with a creative commons license that allows for reuse without explicit permission of the owner
  - [Creative Commons Kiwi](#) is an informative video on Creative Commons licensing
  - Instructions on how to search for images that are fair use are [here](#)
  - You must cite any works that you use that you did not generate yourself (although technically you only need to cite things that are [CC Attribution](#)) A handy site for knowing how to add your citations is [here](#)

## Collaboration Policies

Computer science education is odd in that we expect you to turn in work that you do completely independently when in the "real world" that's not how it works at all. In the real world, co-workers collaborate, bounce ideas off each other, they look up parts of solutions on the internet. But in the "real world" the people doing the work have years of experience, they have proved themselves to their teachers, co-workers and bosses to where they are at that moment and most importantly, they know how to evaluate which of the solutions they are receiving is a suitable one for the task at hand.

We need to be able to evaluate your work. Thus, unless otherwise specified all work in this and other CS classes must be your own. We realize you may look at other sources online to learn how to achieve new things, but we expect you to synthesize this information and not copy it directly. You should never copy (plagiarize) homework or code from another person in this school (past or present) or that you find online directly and submit it as your own work.

You must complete all programming assignments individually. You may **not** discuss homework assignments with other students, but you may (and are encouraged to) discuss related material each week, such as section exercises, lecture material, readings, etc. You may also discuss Creative Projects with other students, as long as the code you write is entirely your own, and discussion with students on Creative Projects should never involve details of how to code a solution. Specifically, you must abide by the following:

- You may **not** work as a partner with another student on an assignment
- You may **not** show another student your solution to an assignment, nor look at their solution
- You may **not** have another person "walk through" an assignment, describe in detail how to solve it, or sit with you (physically or virtually) as you write it
- You may also **not** provide such help to another student. This includes current or former students, tutors, friends, TA's, web site forums, or anyone else
- You may **not** use code directly from any external sources (including copying lecture/section material in programming assignments)
- You may **not** post your homework solutions on a publicly accessible (non-password-protected) web server or Git repository, during the course or after it has been completed. Please see the course website for acceptable ways to show your work to others

- You may **not** look at or use prior solutions from any source

Under our policy, a student who gives inappropriate help is equally guilty with one who receives it. Instead of providing such help to a classmate, point them to other class resources such as lecture examples, office hours, or a TA. You must take reasonable steps to ensure that your work is not copied by others, such as making sure to log out or lock shared computers, not leaving printouts of your code in public places, and not emailing code to other students or posting it on the web or public forums.

We enforce our policies by running detection software during the quarter over all programs, including ones from past quarters. Please contact us if you are unsure whether a particular behavior falls within our policy.

## Citations and Collaboration in Creative Projects

Creative Projects are unique in that students may look for outside resources for inspiration or assistance in accomplishing their goals. On occasion students may wish to use portions of sample code that has been obtained on our course website or others. In order to avoid academic misconduct for a Creative Project in CSE 154 you must:

1. Ensure that substantive original work is submitted that can be evaluated by the course staff
2. Cite the ideas or materials of others that are used. The citation format is not that important - as long as the source material can be located and the citation verified (a url in a comment is generally fine), it's OK
3. Clearly indicate (e.g. with comments) which portions of your code are completely original and which are used or modified from external sources, if any code is used that builds off of/is inspired by external sources (e.g. adaption of an example CSE 154 exercise, online tutorial you find on Bootstrap or a JS library, etc.). We will only grade your original work. Note that solely changing identifier names or rearranging other source material is not considered your original work - see the examples of appropriate use below for details

A good analogy to this is if you were writing a history paper: You can use quotes in your paper as long as you give attribution to the sources of the quote, but you can not write a history paper out of the quotes of others (particularly with no citations). Some examples of appropriate use:

- A student closely follows a tutorial to understand a new concept in web development (e.g. CSS3 animations). The student cites the tutorial they used in the file header then substantially modifies the tutorial code to include what is specified for the Creative Project assignment, documenting which portions of the code are their own so TAs know which portions to grade (and to determine whether the material cited as being learned from the tutorial is sufficiently adapted to be considered the student's own work)
- A student is having difficulty styling their website. They look for a solution and find one on a site such as Stack Overflow. The student uses the code they find in their solution, documents that small piece of code was not their own with a comment that includes where it was found. The TAs will not use that portion of the code in grading

Students with questions about any specific situation should ask the instructor for clarification.

## Privacy

To support an academic environment of rigorous discussion and open expression of personal thoughts and feelings, we, as members of the academic community, must be committed to the inviolate right of privacy of our student and instructor colleagues. As a result, we must forgo sharing personally identifiable information about any member of our community including information about the ideas they express, their families, lifestyles and their political and social affiliations. If you have any questions regarding whether a disclosure you wish to make



regarding anyone in this course or in the university community violates that person's privacy interests, please feel free to ask the instructor for guidance.

Knowingly violating any of these principles of academic conduct, privacy or copyright may result in University disciplinary action under the Student Code of Conduct.

## Wellness

It is especially important to us that you take care of your mental wellness throughout the course. Everyone on the course staff is available to chat, and you can always attend office hours for a non-academic conversation if necessary.

Beyond the course staff, the University of Washington provides the following resources for mental health concerns. Your anonymity and privacy are protected.

- Please reach out to the UW [Counseling Center](#) for any help and concerns related to mental health (including increased stress), available to all UW students at no cost
- Visit [Mental Health Clinic](#), which also provides support for concerns related to mental health
- If you are ever feeling uncomfortable and need to talk or are worried about someone close to you, it is highly recommended to visit the [UW Health and Wellness programs](#). They offer resources to students that can help
- If you're concerned for yourself or a friend, please call SafeCampus at (206) 685-7233

If you have a temporary health condition or permanent disability (either mental health or physical health related), you should contact DRS at [uwdrs@uw.edu](mailto:uwdrs@uw.edu) if you have not already (see [the accessibility section](#) for more details). Additionally, if there is something we can do to make your experience better, please let us know.

## Accessibility

The [Disability Resources for Students \(DRS\)](#) is a unit within the Division of Student Life and is dedicated to ensuring access and inclusion for all students with disabilities on the Seattle campus. They offer a wide range of services for students with disabilities that are individually designed and remove the need to reveal sensitive medical information to the course staff.

If you have a medical need for extensions of exam times or assignment deadlines, these will only be granted through official documentation from DRS. Visit [DRS's Getting Started webpage](#) to start the process as soon as possible to avoid delays.

Note: Students with accommodations are solely responsible for submitting the Alternative Testing Contract and scheduling the exams with DRS well in advance of the exam dates, following the deadline guidelines on the DRS website.

## Religious Accommodations

Washington state law requires that UW develop a policy for accommodation of student absences or significant hardship due to reasons of faith or conscience, or for organized religious activities. The UW's policy, including more information about how to request an accommodation, is available at [Religious Accommodations Policy](#). Accommodations must be requested within the first two weeks of this course using the [Religious Accommodations Request form](#) on UW's site.