


















CS 134: Programming Fundamentals (Fall 2023)

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Schedule

Week #	CS 134	Notes
1 / Aug 21	Unit 00: Welcome to CS 134!	 Aug 21 - First day of the fall semester
2 / Aug 25	Unit 01: Exploring software	 Aug 28 - Last day to drop and receive full refund
3 / Sept 4	Unit 02: Designing programs	 Sept 4 - Labor Day Holiday. Classes not in session. College offices closed. (MONDAY ONLY)
4 / Sept 11	Unit 03: Storing data in variables	
5 / Sept 18	Unit 04: Building programs 1	
6 / Sept 25	(Break week - R.W.'s classes only)	
7 / Oct 2	Unit 05: Branching code with if statements	
8 / Oct 9	Unit 06: Repeating code with while loops	
9 / Oct 16	Unit 07: Storing lists of data, iterating over data	 Oct 16 - application deadline for fall graduation
10 / Oct 23	Unit 08: Building programs 2	 Class and office hours REMOTE ONLY THIS WEEK

Week #	CS 134	Notes
11 / Oct 30	Unit 09: Delegating tasks with functions	
12 / Nov 6	Unit 10: Object Oriented Programming basics with classes	
13 / Nov 13	SEMESTER PROJECT	 Nov 15 - last day to withdraw with "W"
14 / Nov 20	SEMESTER PROJECT	 Nov 22 - 26 - Thanksgiving Day holiday. Classes not in session. College offices closed.
15 / Nov 27	SEMESTER PROJECT	
16 / Dec 4	FINAL EXAM: Dec 6, 7:00 - 8:50 pm	 Dec 5 - 11, final exams week
17 / Dec 11	POST-SEMESTER; grades posted online by Dec 12 @ 5 pm	 Dec 12 - grades entered online by 5 pm

[CS134] Unit 00: Welcome to CS 134! (Click to expand/collapse)



1. Before class



- [Syllabus](#) - Please skim through the syllabus. We will also take a look at the important points during class.

2. In class

- [Buffer time - Gartic phone](#)
- Welcome! Course intro / syllabus overview / questions
- Tools setup

- [Replit Account](#) - Sign up for a Replit account if you don't already have one
- Replit Teams: ([INVITE LINK](#), [ACCESS LINK](#))
- Open the project "TEST PROGRAM" and run it to make sure everything works! :)
- Hate light-mode webpages? Install the [Dark Reader plugin](#) (optional)

3. After class

-  [Introductions! \(Discussion board\)](#) - Introduce yourself to your instructor (me!) and your classmates! :)
-  [Pre-test](#) - This assignment is *not for points* but the same test will be given at the end of the semester. Both of us can use your results at the beginning and end of the course to see your growth!
- [Join the course Discord! \(optional but recommended\)](#) - Another way you can reach me and your classmates to ask questions about the course, homework, etc.

[CS134] Unit 01: Exploring software (Click to expand/collapse)




1. Before class

- Look at all the computers you use in your daily life, even more hidden ones like in your car.
- Think about how you might use NUMBERS to represent different things in the world: Text, images?
- [Moose Invader \(on Replit\)](#)

2. In class

PRESENTATION:



[Week 2 in-class presentation \(CS134\)](#)

 Unit 01 Exercise - Exploring Software

 [Canvas assignment](#)

3. After class

Concept introduction:

-  [What's the point of computer programs?](#)
-  [How do computers store data? - Variables](#)

Tech literacy:

 [How computers and software work - Tech Literacy](#)

Weekly check-in:

 [Week 2 Check-in](#)

[CS134] Unit 02: Program design (Click to expand/collapse)




1. Before class

Nothing this week :)

2. In class

PRESENTATION:

 [Week 3 in-class presentation \(CS134\)](#)

 Unit 02 Exercise - Designing Software

 [Canvas assignment](#) /  [Documentation](#)

3. After class

Weekly check-in:

 [Week 3 Check-in](#)

[CS134] Unit 03: Storing data in variables (Click to expand/collapse)




1. Before class

Reading:

-  [Variables](#)
-  [Input and output](#)

Concept introduction:

-  [Unit 03 Intro - Input and output](#)
-  [Unit 03 Intro - Variables](#)

2. In class


PRESENTATION:

 [In-class presentation](#)

 Unit 03 Exercise - Input/Output and Variables

 [Canvas assignment](#) /  [Documentation](#)

3. After class

 Notes:

 [Canvas assignment](#) /  [Questions](#)

Weekly check-in:

 [Unit 03 Checkin - Week 4](#)

[CS134] Unit 04: Building programs 1 (Click to expand/collapse)



1. Before class

Reading:


 [Writing programs](#)

Concept introduction:

2. In class

PRESENTATION:

- [Example code: Outputs](#)
- [Example code: Arithmetic](#)
- [Example code: Conversions](#)
- [Example code: House price](#)

 Unit 04 Exercise - Building programs 1

 [Canvas assignment](#) /  [Documentation](#)

3. After class

Tech literacy:

 [Unit 04 Tech Literacy - Careers - UI/UX Designer](#)

Weekly check-in:

 [Unit 04 Checkin - Week 5](#)

[CS134] Unit 05: Branching code with if statements



1. Before class

Reading:

 [Branching with if statements](#)

Concept introduction:

 [Unit 05 Intro - Branching basics](#)

2. In class


PRESENTATION:

 [In-class presentation](#)

 Unit 05 Exercise - If statements

 [Canvas assignment](#) /  [Documentation](#)

3. After class

 Notes:

 [Canvas assignment](#) /  [Documentation](#)

Tech literacy:

 [Unit 05 Tech Literacy - Careers – Software Engineer, Software Engineer in Test, QA](#)

Weekly check-in:

 [Check-in](#)

[CS134] Unit 06: While loops



1. Before class

Reading:

[Looping with while loops](#)

Concept introduction:

 [Unit 06 intro - While loops](#)

2. In class


PRESENTATION:

 [In-class presentation](#)

 Unit 06 Exercise - While loops

 [Canvas assignment](#) /  [Documentation](#)

3. After class

 Notes:

 [Canvas assignment](#) /  [Documentation](#)

Tech literacy:

 [Unit 06 Tech Literacy - Careers - Database Admin, IT](#)

Weekly check-in:

 [Check-in](#)

[CS134] Unit 07: Storing lists of data, iterating over data



1. Before class

Reading:

 [Lists/Arrays/Vectors, whatever](#)

Concept introduction:

 [Unit 07 Intro - Lists/arrays and For loops](#)

2. In class


PRESENTATION:

 [List example code](#)

 Unit 07 Exercise - Lists/Arrays

 [Canvas assignment](#)  [Documentation](#)

3. After class

 Notes: Unit 07 Notes - Lists/Arrays

 [Canvas assignment](#) /  [Documentation](#)

Tech literacy:

 [Unit 07 Tech Literacy - Careers - Information Security, Data Scientist](#)

[CS134] Unit 08: Building programs 2




1. Before class

Quick reference sheet (use while coding):

[Python Cheatsheet](#)

[C++ Cheatsheet](#)

2. In class

 Unit 08 Exercise - Building Programs 2

 [Canvas assignment](#)  [Documentation](#)

3. After class

Weekly check-in:

 [Unit 08 Checkin - Week 10](#)

[CS134] Unit 09: Delegating tasks with Functions



1. Before class

Reading:

 [Functions](#)


Concept introduction:

 [Unit 09 Intro - Functions](#)

2. In class

PRESENTATION:

 [Example code](#)

 Unit 09 Exercise - Functions

 [Canvas assignment](#)  [Documentation](#)

3. After class

 Notes: Unit 09 Notes - Functions

 [Canvas assignment](#) /  [Documentation](#)

Tech literacy:

 [Unit 08 Tech Literacy - Careers - DevOps, Business Analyst, Product Manager](#)

Weekly check-in:

 [Unit 09 Checkin - Week 11](#)

[CS134] Unit 10: Object Oriented Programming basics with `class`



1. Before class

Concept introduction:

 [Unit 10 Intro - Object oriented programming](#)

2. In class

PRESENTATION:

 [Example code](#)

 Unit 10 Exercise - Classes

 [Canvas assignment](#) (Follow along with coding in class)

3. After class

Tech literacy:

 [Unit 10 Tech Literacy - Practicing between semesters](#)

Weekly check-in:

 [Unit 10 Checkin - Week 12](#)



1. Before class

Think about what kind of program you'd like to make! See the project documentation for requirements of code features.

2. In class

PRESENTATION:

We can work on example programs during class, as well as fill out the "cookbook" of useful code snippets as well, based on student suggestions.

 [Example programs](#)

SEMESTER PROJECT

 [Canvas assignment](#)  [Documentation](#)

3. After class

Weekly check-in:

 [Project Checkin - Week 14](#)

Additional information

Course collaboration expectations



Code of conduct

Since you will be interacting with other students in this course, please make sure to review this Code of Conduct:

Pledge

We as *students and instructors* make participation in our community a harassment-free experience for everyone, regardless of age, body size, visible or invisible disability, ethnicity, sex characteristics, gender identity and expression, level of experience, education, socio-economic status, nationality, personal appearance, race, caste, color, religion, or sexual identity and orientation.

We pledge to act and interact in ways that contribute to an open, welcoming, diverse, inclusive, and

healthy community.

Standards

Examples of behavior that contributes to a positive environment for our community include:

- Demonstrating empathy and kindness toward other people
- Being respectful of differing opinions, viewpoints, and experiences
- Giving and gracefully accepting constructive feedback
- Accepting responsibility and apologizing to those affected by our mistakes, and learning from the experience
- Focusing on what is best not just for us as individuals, but for the overall community

Examples of unacceptable behavior include:

- The use of sexualized language or imagery, and sexual attention or advances of any kind
- Trolling, insulting or derogatory comments, and personal or political attacks
- Public or private harassment
- Publishing others' private information, such as a physical or email address, without their explicit permission
- Other conduct which could reasonably be considered inappropriate in a professional/*academic* setting

Scope

This Code of Conduct applies within all *course* spaces, including on campus, in the discussion boards, via email, and the course Discord channel.

Enforcement

Instances of abusive, harassing, or otherwise unacceptable behavior may be reported to the *instructor* at **rsingh13@jccc.edu**. All complaints will be reviewed and investigated promptly and fairly. *The instructor is* obligated to respect the privacy and security of the reporter of any incident.

(Adapted from the [Contributor Covenant Code of Conduct](#))

How do pronouns work?



- Pronouns are a grammatical construct that most languages utilize. First person pronouns in English are "I, me" and "we", second person pronouns are "you", and third person pronouns traditionally are "he, she, they, it".
- Traditionally, a person's gender (male, female) is designated at birth based on their genitalia. The pronouns used for the gender is often set (male = he/him, female = she/her).
- A **cisgender person** (cis- being a prefix coming from Latin meaning "on this side" - [cis-](#)

[etymology](#)) is a person who was either:

- Assigned MALE at birth, identifies as a MALE, and uses he/him pronouns.
- Assigned FEMALE at birth, identifies as FEMALE, and uses she/her pronouns.
- A **transgender person** (trans- being a prefix coming from Latin meaning "across, on the other side of" - [trans- etymology](#)) is a person who does not identify with the gender they were assigned at birth. This can mean many different things, including:
 - An "AMAB" (Assigned Male At Birth) person who now identifies themselves as FEMALE or NONBINARY.
 - An "AFAB" (Assigned Female At Birth) person who now identifies themselves as MALE or NONBINARY.
- NONBINARY is an umbrella term for someone who does not fit neatly into the traditional gender binary of only "male" or only "female. This may include identities like "neither gender", "no gender", "both genders", and more. You do not need to understand somebody else's gender to care for and respect that person.
- A PERSON can be ANY GENDER and be CIS OR TRANS and use ANY PRONOUNS. The pronouns being used does not require a specific gender.
- You can have AS MANY PRONOUNS AS YOU'D LIKE. Many people use "she/they" or "he/they", giving speakers an option of pronouns to use.
- Often NONBINARY PEOPLE may use gender-neutral-third-person-singular pronouns "they/them". THIS IS GRAMMATICALLY CORRECT.
- Many NONBINARY PEOPLE will also use NEO-PRONOUNS, new pronouns such as "ze/zir", "xe/xem". You can invent your own pronouns if you'd like.
- NO TWO PEOPLE ARE THE SAME. Everybody has a different relationship with their gender and with the language we speak.
- GENDER and SEXUALITY are not the same. Someone can be CIS or TRANS and still be STRAIGHT, GAY, BI/PAN, ACE, or other sexual identities.

Pronoun usage

Pronouns	Examples
he/him	"That is Buddy, he is a dog. His favorite toy is a donut. He is over there playing by himself."
she/her	"That is Kabe, she is a cat. Her favorite toy is not a toy, it's just sleeping. She is over there sleeping by herself."
they/ them	"That is R.W., they are my teacher. Their favorite hobby is playing video games. However, they are over there grading by themselves. They would really like a coffee about now."

