


















CS 235: Object Oriented Programming with C++ (Fall 2023)

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Schedule

Week #	CS 235	Notes
1 / Aug 21	Unit 00: Welcome to CS 235!	 Aug 21 - First day of the fall semester
2 / Aug 25	Unit 01: Exploring software Unit 02: CS 200 review	 Aug 28 - Last day to drop and receive full refund
3 / Sept 4	Unit 03: Debugging and testing Unit 04: Source control with git	 Sept 4 - Labor Day Holiday. Classes not in session. College offices closed. (MONDAY ONLY)
4 / Sept 11	Unit 05: Exceptions	
5 / Sept 18	Unit 06: Templates Unit 07: Standard Template Library	
6 / Sept 25	(Break week - R.W.'s classes only)	
7 / Oct 2	Unit 08: Overloaded functions Unit 09: Default parameters	
8 / Oct 9	Unit 10: Friends Unit 11: Static	
9 / Oct 16	Unit 12: Polymorphism	 Oct 16 - application deadline for fall graduation

Week #	CS 235	Notes
10 / Oct 23	Unit 13: Overloaded operators	 Class and office hours REMOTE ONLY THIS WEEK
11 / Oct 30	Unit 14: Anonymous functions Unit 15: Recursion	
12 / Nov 6		
13 / Nov 13	Unit 16: Searching and sorting	 Nov 15 - last day to withdraw with "W"
14 / Nov 20	Unit 17: Linking third-party libraries	 Nov 22 - 26 - Thanksgiving Day holiday. Classes not in session. College offices closed.
15 / Nov 27		
16 / Dec 4	ONLINE	 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

[CS235] Unit 00: Welcome to CS 235! (Click to expand/collapse)



[CS235] Unit 01: Exploring software (Click to expand/collapse)



[CS235] Unit 02: CS 200 Review (Click to expand/collapse)



[CS235] Unit 03: Debugging and testing (Click to expand/collapse)



[CS235] Unit 04: Source control with git (Click to expand/collapse)



[CS235] Unit 05: Exceptions (Click to expand/collapse)



[CS235] Unit 06: Templates (Click to expand/collapse)



[CS235] Unit 07: The Standard Template Library (Click to expand/collapse)



[CS235] Unit 08: Overloaded functions (Click to

expand/collapse)



[CS235] 09: Default parameters (Click to expand/collapse)




[CS235] 10: Friends



1. Learning

 Reading:

[Friends](#)

 Concept introduction:

 [Unit 10 Intro - Friends](#)

2. Practice

 Unit 10 Exercise - Friends

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

3. Additional

 [Unit 10 Notes - Friends](#)


[CS235] 11: Static



1. Learning

 Reading:

[Static](#)

 Concept introduction:

 [Unit 11 Intro - Static](#)

2. Practice

 Unit 11 Exercise - Static members (coming soon - music app group project)

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

3. Additional

 [Unit 11 Notes - Static members](#)


 [Tech Literacy - Jobs in tech](#)



 [Unit 11 Checkin - Week 8](#)


[CS235] 12: Polymorphism



1. Learning

 Reading:
[Polymorphism](#)

 Concept introduction:
 [Unit 12 Intro - Polymorphism](#)

 Video lecture:
[Polymorphism](#)

2. Practice

 Unit 12 Exercise - Polymorphism

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

3. Additional

 [Unit 12 Notes - Polymorphism](#)

 [Unit 12 Tech Literacy - Professional networking](#)

 [Unit 12 Checkin - Week 9](#)

[CS235] Unit 13: Overloaded operators



1. Learning

📖 Reading:

[Operator Overloading](#)

📺 Video lecture:

[Operator overloading \(28:14\)](#)

NEW Concept introduction:

 [Unit 13 Intro - Operator overloading](#)

2. Practice

🏆 Unit 13 Exercise - Overloaded operators

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

3. Additional

 [Unit 13 Notes - Overloaded operators](#)

[CS235] Unit 14: Anonymous functions



1. Learning

📖 Reading:


[Anonymous Functions](#)

NEW Concept introduction:

 [Unit 14 Intro - Anonymous functions](#)

2. Practice

🏆 Unit 14 Exercise - Anonymous functions (coming soon - music app group project)

 [Canvas assignment](#)

 Documentation is in the TICKET

Refer to my MERGE REQUEST for guidance:

- [Team Guava version](#)
- [Team Lychee version](#)
- [Team Mango version](#)
- [Team Papaya version](#)

3. Additional


[CS235] Unit 15: Recursion



1. Learning

 Reading:

[Recursion](#)

 Concept introduction:

 [Unit 15 Intro - Recursion](#)

2. Practice

No exercise; check Reading material for practice and answer key.

3. Additional

 Recursion

(Notes with solution):

 [Documentation](#)

 [Unit 14 Tech Literacy - Building a portfolio](#)

 [Unit 14 Checkin - Week 10](#)


[CS235] Unit 16: Searching and sorting



1. Learning

Reading:



 [Searching and sorting](#)

 Video lecture:


[Example code - Searching and sorting \(CS 200 archive\)](#)

2. Practice

EXAMPLE:

 [Example code](#) Unit 16 Exercise - Searching and sorting [Canvas assignment](#) (Documentation and starter code linked in assignment) [Video walkthrough](#)**3. Additional** [Unit 16 Tech Literacy - Code Licenses](#)

[CS235] Unit 17: Linking third-party libraries

**1. Learning** Concept introduction: [Unit 17 Intro - Linking libraries](#)**2. Practice** Unit 17 Exercise - Linking third party libraries [Canvas assignment](#) [Documentation](#)**3. Additional** [Unit 17 Tech Literacy - Practice between semesters](#) [Unit 16/17 Checkin - Week 11](#)

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* to 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 you report a violation?



- 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

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."
