

Course Syllabus

CptS 122: Spring, 2026 [4 Credits] Data Structures in C/C++ - Syllabus



Instructor Information

Instructor: Andrew S. O'Fallon

Office: EME 125

Phone Number: (509) 335-1777

Email: aofallon@wsu.edu (<mailto:aofallon@wsu.edu>)

(<mailto:aofallon@wsu.edu>) **Office Hours:** M, W, F 3:00 – 5:00 pm PST, or by appointment



Teaching Assistant Information

TA information is ordered based on office hours times M - F (check the [WSU building description](https://schedules.wsu.edu/Buildings/) (<https://schedules.wsu.edu/Buildings/>) for more information about the location)

Office Hours	TA	Email	Location
Monday			
			Dana 134
			Dana 134
Tuesday			
			Dana 134
			Dana 134
Wednesday			
			Dana 134
			Dana 134
Thursday			
			Dana 134

			Dana 134
Friday			
			Dana 134
			Dana 134

VCEA Tutoring

Tutoring Hours: <https://vcea.wsu.edu/student-success/tutoring/tutoring-schedule/> 
[\(https://vcea.wsu.edu/student-success/tutoring/tutoring-schedule/\)](https://vcea.wsu.edu/student-success/tutoring/tutoring-schedule/)

Course Information – Data Structures in C/C++, CptS 122 [4 credits], Required for Majors

Course Times & Location:

- Lecture: M, W, F 10:10 – 11:00 am PST; CLEV 30

Lab Location:

- EME 128 (check the [WSU building description](https://schedules.wsu.edu/Buildings/)  [\(https://schedules.wsu.edu/Buildings/\)](https://schedules.wsu.edu/Buildings/) for more information about the location).

*NOTE: There is **NO** lab the week of January 12 - 16.*

Lab Times:

- Section 01: TU 7:45 – 10:35 am PST; EME 128; **TA: TBA**
- Section 02: TU 10:35 am – 1:25 pm PST; EME 128; **TA: TBA**
- Section 03: TU 1:30 – 4:20 pm PST; EME 128; **TA: TBA**
- Section 04: TU 4:20 – 7:10 pm PST; EME 128; **TA: TBA**
- Section 05: TU 7:10 - 10:00 pm PST; EME 128; **TA: TBA**
- Section 06: W 11:10 am - 2:00 pm PST; EME 128; **TBA**
- Section 07: W 2:10 – 5:00 pm PST; EME 128; **TBA**
- Section 08: W 5:10 - 8:00 pm PST; EME 128; **TBA**
- Section 09: TH 7:45 – 10:35 am PST; EME 128; **TBA**
- Section 10: TH 10:35 am – 1:25 pm PST; EME 128; **TBA**
- Section 11: TH 1:30 – 4:20 pm PST; EME 128; **TBA**
- Section 12: TH 4:20 – 7:10 pm PST; EME 128; **TBA**


Description: CptS 122 is a second course ("CS 2") in computer science for majors. In this course, we use the C/C++ programming languages to explore the fundamental concepts, constructs, and techniques of modern computer programming, including linear and nonlinear data structures, basic software engineering principles, and objected-oriented design and application. The primary aim of this course is to refine your problem solving and programming skills, and to elevate your critical thinking skills so that you may apply efficient data structures to real engineering problems. Some of these concepts include, but are not limited to, the following:



- Algorithmic design
- Program design and implementation
- Algorithm analysis
- Data structure selection, design, and implementation
- Class/object design and implementation
- Software testing


In this course we will emphasize software engineering best practices, analyzing and applying data structures, and appropriate program design and development. Please see the tentative topic schedule listed at the bottom of this page. The underlying applications for this class will include applications ranging from basic data analytics and music managers to simple compilers.

Learning Objectives: At the conclusion of this course, you should be able to:

- Design, apply, and implement data structures including lists, stacks, queues, and binary trees.
- Apply and implement several sorting algorithms.
- Analyze algorithmic complexity.
- Design, implement, test, and debug C++ programs applying modern tools and techniques.
- Analyze a specification of a problem of moderate complexity, and construct a structured, elegant C++ program that solves the problem with the most appropriate data structure(s).
- Design and articulate solutions to lab problems with classmates.
- Identify and implement test cases to edge scenarios in pseudocode and/or C++ code.
- Identify, analyze, and solve C++ code and data structures interview questions in prep for internships.

Prerequisites: Before taking this course, you need to satisfy the **prerequisites**  (<https://schedules.wsu.edu/sectionInfo/>) listed on the WSU list of courses schedule.

Communication: We will use **Canvas**  (<https://canvas.wsu.edu/>) in this course. You may use this tool to message and chat with other students in the class. You may also use this tool to post discussion items. *Note: I will post important CptS 122 news updates to this site so please check it regularly.* The messages will be posted as announcements under the lecture component in Canvas. I will also message important information to you through Canvas or the email registered in **myWSU**  (<http://www.my.wsu.edu/>) (use your WSU network ID and password to log in).

Expected Outcomes: The following are WSU and ABET outcomes. Please refer to <https://vcea.wsu.edu/abet-accreditation/>  (<https://vcea.wsu.edu/abet-accreditation/>) for more

information about ABET performance indicators. After completing this course all students will have an ability to:

- *Analyze complex computing problems and to apply principles of computing and other relevant disciplines to identify solutions*
 - *Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of a program's discipline*
 - *Communicate effectively in a variety of professional contexts*
 - *Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline*
 - *Apply computer science theory and software development fundamentals to produce computing-based solutions*
 - *Acquire and apply new knowledge as needed, using appropriate learning strategies*
-

Course Materials


Required Textbooks:

- P.J. Deitel & H.M. Deitel, *C++: How to Program: An Objects-Natural Approach (11th Ed.)*, Pearson Education, Inc., 2024. ISBN: 9780138101640. **No online access code is required!**


Suggested Reference Textbooks:

- J.R. Hanly & E.B. Koffman, *Problem Solving & Program Design in C (8th ed.)*, Pearson Education, Inc., 2016. ISBN: 9780134014890. **No online access code is required!**
- P.J. Deitel & H.M. Deitel, *C: How to Program (8th ed.)*, Pearson Education, Inc., 2016. ISBN: 9780133976892. **No online access code is required!**

Required Hardware:

- A laptop adhering to EECS requirements. Please refer to <https://school.eecs.wsu.edu/laptop-requirements/>  [\(https://school.eecs.wsu.edu/laptop-requirements/\)](https://school.eecs.wsu.edu/laptop-requirements/).

Required Software:

- **Windows Users:** Microsoft Visual Studio **Community** 2026 (for the programming assignments and labs). If you are running a Windows OS, then you will be required to run a version of Windows 10 or 11 to install and run Visual Studio (VS). You can find a version of the most recent Windows OS through the [Tech Store \(https://azureforeducation.microsoft.com/devtools\)](https://azureforeducation.microsoft.com/devtools). You can download VS **Community** 2026 for free through Microsoft:
<https://visualstudio.microsoft.com/vs/community/> 
[\(https://visualstudio.microsoft.com/vs/community/\)](https://visualstudio.microsoft.com/vs/community/).
- **Mac Users:** If you have a Mac, although there is a native version of VS for Mac, it does not support the programming language (C) that we are using in this course. You will need **Parallels**

(<http://www.parallels.com/>), [Boot Camp](https://support.apple.com/boot-camp) (<https://support.apple.com/boot-camp>), [VMware Fusion](https://www.vmware.com/info/fusion/faq) (<https://www.vmware.com/info/fusion/faq>), [VirtualBox](https://www.virtualbox.org/) (<https://www.virtualbox.org/>), or other software to run Windows 11 and VS **Community** 2026. This is because we need a consistent platform for grading. I highly recommend purchasing a version of Parallels, especially if you have a computer with Apple Silicon or ARM chips. If you decide to purchase Parallels, you will receive a discount through <https://www.parallels.com/products/desktop/buy/?pd&new>  (<https://www.parallels.com/products/desktop/buy/?pd&new>). Please be sure to click on the "Students" tab for a discount. The **Standard Edition** is suitable.

- To setup VS Community run the installer and select the "Desktop development with C++" workload. There is no need to modify any of the optional features that are already present with the workload. Sign in with your WSU credentials. See the image below:



Academic Integrity Policy

Academic integrity is at the heart of all higher education philosophies. Adhering to academic integrity policies ensures that you provide yourself with the best education possible. Maintaining academic integrity assures you receive the credit you deserve for your ideas.

You are expected to know and understand Washington State University Academic Integrity Policies. Copying and plagiarism of other sources will result in an automatic 0 or F on the assignment. For a second offense, an automatic F in the course will be awarded. In all cases, university authorities will be notified and the proper procedures will be followed. Possible outcomes resulting from violating these policies include denial of certification into your program and expulsion.


For this course both group (for labs) and individual work (for all other assignments, quizzes, and exams) will be required. **We will be using plagiarism detection software in this class to determine similarities between programs.** All individual work is designed to be completed with minimal help from your classmates, although you can discuss ideas, you should not generally share code with each other. **If you do receive some help from classmates, tutors, and/or TAs, please identify their names in the comment block at the top of your main source file and above the block of code that was shared.** You may also use inline comments to indicate specific statements that were shared between you and others. **If you do not identify the students that helped you with your program including tutors and/or TAs, then you are at risk of being identified as copying or plagiarizing.** If you and other students submit the same solution with only minor changes, this is considered copying/plagiarism and all parties involved will receive a 0 on the work and will be reported to the Office of Student Conduct. If you apply code from a website, then you must also identify the website in a comment block. If all of your work comes directly from one or more online resources, then this also considered copying/plagiarism and you will receive a 0 on the work and will be reported to the Office of Student Conduct. Please also note that at times we will use

generative (gen) AI for helping with some tasks. If you use gen AI outside the guidelines for the class, then you will also be reported to the Office of Student Conduct. If help is required, please ask the instructor or TA for guidance first! We are always more than willing to help!!

Campus statement: “Academic integrity is the cornerstone of higher education. As such, all members of the university community share responsibility for maintaining and promoting the principles of integrity in all activities, including academic integrity and honest scholarship. Academic integrity will be strongly enforced in this course. Students who violate WSU’s Academic Integrity Policy (identified in Washington Administrative Code (WAC) 504-26-010(4) will receive an automatic 0 or F on the assignment. For a second offense, an automatic F in the course will be awarded. You will not have the option to withdraw from the course pending an appeal, and will be reported to the Center for Community Standards.

*Cheating includes, but is not limited to, plagiarism and unauthorized collaboration as defined in the Standards of Conduct for Students, WAC 504-26-010(3). Read and understand all of **the definitions of cheating** (<http://app.leg.wa.gov/WAC/default.aspx?cite=504-26-010>). If you have any questions about what is and is not allowed, ask your course instructor.*

*If you wish to appeal a instructor’s decision relating to academic integrity, please use the form available at **communitystandards.wsu.edu** (<https://communitystandards.wsu.edu/>). Make sure you submit your appeal within 21 calendar days of the instructor’s decision.”*

Please thoroughly review the following website for more information about the WSU academic integrity policy <https://communitystandards.wsu.edu/policies-and-reporting/academic-integrity-policy/>  (<https://communitystandards.wsu.edu/policies-and-reporting/academic-integrity-policy/>).

Please also review the following website for more information about the EECS academic integrity policy (if any discrepancies are found within the EECS and WSU academic integrity policies, always follow the WSU policy) <http://www.eecs.wsu.edu/~schneidj/Misc/academic-integrity.html> (<http://www.eecs.wsu.edu/~schneidj/Misc/academic-integrity.html>).

Students with Disabilities

Washington State University has facilities and resources available for accommodating students with disabilities. Please notify me during the first week of class of any accommodations needed for the course.

Campus statement: “Reasonable accommodations are available for students with documented disabilities or chronic medical or psychological conditions. If you have such a condition and need accommodations to fully participate in this class, please visit your campus’ Student Accommodations and Disability Resources website to follow published procedures to request accommodations. Students may also contact their campus offices to schedule an appointment with a Disability Specialist. All disability related accommodations are to be approved through the Student Accommodations and Disability Resources on your campus. It is a university expectation that students connect with instructors

(via email, Zoom, or in person) to discuss logistics within two weeks after they have officially requested their accommodations.” You may also contact the Student Accommodations and Disability Resources via: 509-335-3417 **[Student Accommodations and Disability Resources](https://accommodations.wsu.edu/)** (<https://accommodations.wsu.edu/>) - <https://accommodations.wsu.edu/> (<https://accommodations.wsu.edu/>) or email at accommodations@wsu.edu (<mailto:accommodations@wsu.edu>) .

I also encourage you to remind me about any special accommodations required for exams at least two days prior to them.



Accommodation for Religious Observances or Activities

Campus statement: “Washington State University reasonably accommodates absences allowing for students to take holidays for reasons of faith or conscience or organized activities conducted under the auspices of a religious denomination, church, or religious organization. Reasonable accommodation requires the student to coordinate with the instructor on scheduling examinations or other activities necessary for course completion. Students requesting accommodation must provide written notification within the first two weeks of the beginning of the course and include specific dates for absences. Approved accommodations for absences will not adversely impact student grades. Absence from classes or examinations for religious reasons does not relieve students from responsibility for any part of the course work required during the period of absence. Students who feel they have been treated unfairly in terms of this accommodation may refer to Academic Regulation 104 – Academic Complaint Procedures”.



Discrimination and Harassment Policy Statement

Campus statement: “Discrimination, including discriminatory harassment, sexual harassment, and sexual misconduct (including stalking, intimate partner violence, and sexual violence) is prohibited at WSU (See **WSU Policy Prohibiting Discrimination and Harassment** (<https://ccr.wsu.edu/executive-policy15/>) (Executive Policy 15) and **WSU Standards of Conduct for Students** (<http://app.leg.wa.gov/WAC/default.aspx?cite=504-26>)). If you feel you have experienced or have witnessed discriminatory conduct, you can contact the WSU Compliance & Civil Rights (CCR) and/or the **WSU Title IX Coordinator** (<http://ccr.wsu.edu/title-ix/>) at 509-335-8288 to discuss resources, including confidential resources, and reporting options. (Visit ccr.wsu.edu (<http://ccr.wsu.edu>) for more information). Most WSU employees, including faculty, who have information regarding sexual harassment or sexual misconduct are required to report the information to CCR or a designated Title IX Coordinator or Liaison. (Visit ccr.wsu.edu/reporting-requirements (<http://ccr.wsu.edu/reporting-requirements/>) for more info).”



Lauren's Promise

Campus statement: *"Lauren's Promise – I will listen and believe you if someone is threatening you.*

Lauren McCluskey, a 21-year-old honors student athlete, was murdered on Oct. 22, 2018, on the University of Utah campus by a man she briefly dated. We must all take actions to ensure that this never happens again.

University Support and Response for Discrimination and Harassment

Discrimination, discriminatory harassment, sexual harassment, and sexual misconduct (including stalking, intimate partner violence, and sexual violence) are prohibited at WSU (see Executive Policy 15 – [WSU Policy Prohibiting Discrimination and Harassment](https://ccr.wsu.edu/executive-policy15/), [\(https://ccr.wsu.edu/executive-policy15/\)](https://ccr.wsu.edu/executive-policy15/) the [WSU Standards of Conduct for Students](https://app.leg.wa.gov/wac/default.aspx?cite=504-26) [\(https://app.leg.wa.gov/wac/default.aspx?cite=504-26\)](https://app.leg.wa.gov/wac/default.aspx?cite=504-26), and relevant employee manuals). WSU has instituted procedures to respond to violations of these laws and standards, programs aimed at the prevention of such conduct, and intervention on behalf of victims.

If you are in immediate danger, call 911.

*If you are experiencing sexual assault, domestic violence, stalking, discrimination or harassment, **you have support and options**. If you share information with me, please know that I am required to reach out to the Title IX Coordinator in WSU Compliance and Civil Rights (CCR), and CCR will reach out to you with information about on and off campus reporting options and resources. CCR is a system-wide resource (all campuses) which is available for intake consultations for you to learn more about available support. You can reach them directly at 509-335-8288, ccr@wsu.edu (<mailto:ccr@wsu.edu>), or [report online](https://ccr.wsu.edu/file-a-complaint/) [\(https://ccr.wsu.edu/file-a-complaint/\)](https://ccr.wsu.edu/file-a-complaint/) (anonymous reports accepted).*

You can also speak to a victim advocate, a medical provider, or counselor confidentially about your concerns. Advocates help survivors of crime determine their own needs in regards to their physical and emotional health, reporting options, and academic concerns. At no cost, advocates connect survivors to campus and community services, and provide accompaniment to important appointments (court, hospital, and police) and support throughout the process. For a list of confidential victim advocates and medical providers, please visit [CCR Resources](https://ccr.wsu.edu/resources/) [\(https://ccr.wsu.edu/resources/\)](https://ccr.wsu.edu/resources/).

WSU Police Department (WSU PD) officers and campus security will treat victims of sexual assault, domestic violence, stalking, hate crimes, and other crimes with respect and dignity. WSU PD, campus security departments, CCR, and victim advocates can also help you with safety planning."



WSU's Student Care Network

As a student you have many responsibilities and obligations. One of the most important obligations that you may have is to your friends and peers at WSU. If you feel like one of your friends or peers is struggling with academics because of physical or mental health please inform me and/or appropriate

university personnel. For more information refer to <https://studentcare.wsu.edu/> (<https://studentcare.wsu.edu/>).

Safety and Emergency Notification

Campus statement: “Classroom and campus safety are of paramount importance at Washington State University, and are the shared responsibility of the entire campus population. WSU urges students to follow the “Alert, Assess, Act,” protocol for all types of emergencies and the **“Run, Hide, Fight”** (<https://oem.wsu.edu/emergency-procedures/active-shooter/>) response for an active shooter incident. Remain ALERT (through direct observation or emergency notification), ASSESS your specific situation, and ACT in the most appropriate way to assure your own safety (and the safety of others if you are able).

Please sign up for emergency alerts on your account at myWSU. For more information on this subject, campus safety, and related topics, please view the **FBI’s Run, Hide, Fight video** (<https://oem.wsu.edu/emergency-procedures/active-shooter/>) and visit the **WSU safety portal** (<https://oem.wsu.edu/about-us/>).

Full details can be found at <https://provost.wsu.edu/classroom-safety/> (<https://provost.wsu.edu/classroom-safety/>).

Course Policies

Generative AI or Large Language Models (LLMs):

- The appropriate use of LLMs or Generative (gen) AI will be provided in the instructions for labs and programming assignments. However, you may not use LLMs or gen AI for quizzes and exams.
- If there is evidence to suggest a **substantial** part of the assignment has been generated by AI outside the guidelines established in each lab and programming assignment, then it will be treated as a violation of Academic Integrity and necessary steps will be taken as per the academic integrity policy stated in the syllabus.
- As always, if you are in doubt of what is permitted and what is not, please ask the instructor and/or TAs!

Late Work: Programming assignments (excludes quizzes and labs) are due by the established due dates and times shown in the Calendar and the course schedule. You may hand in a programming assignment up to two days late (the weekend counts as one day), at a penalty of 10% per 24 hours late. Forty-eight hours after the assignment is due, you may no longer hand in the assignment for credit. At that time, the link to the solution key for the assignment will be available in Canvas under the Solutions section. You may not submit late quizzes or labs. If an emergency occurs, the instructor will

accommodate the student as much as possible. **Make-up exams will not be possible unless the student speaks with the instructor at least two days in advance.** I understand emergencies do occur and rescheduling of exams because of these is to be determined by the instructor.

Miscellaneous: All graded work will generally be returned within one week of submission. You will submit programming assignments and quizzes through your corresponding lab section in **Canvas – <https://canvas.wsu.edu/> (<https://canvas.wsu.edu/>)**.

Philosophy: I have a passion for engineering and teaching, and believe that students should have fun while they learn! I will do everything in my ability to make sure that you learn and succeed. Washington State University is truly a great place to obtain an education. I want to improve my teaching every day and I hope that you want to improve your engineering skills every day!

The general rule-of-thumb is that you will get as much out of the course as effort that you put into it, so please work diligently and you will be rewarded for the work that you put into the class.



Contesting a Grade: If you believe that a mistake has been made with grading an assignment or exam, please speak with the instructor or TA within 2 days of the assignment or exam being returned. Do not wait until the end of the session to discuss any grade changes. You need to constantly be aware of how you are performing in the class. Thus, there will not be any surprises at the end of the session when grades are to be formally submitted. You should be able to view your grades via your **lab** section in **Canvas (<https://canvas.wsu.edu/>)**. These will generally be updated weekly. NOTE: the grades in Canvas may just be raw scores and not be weighted according to the ones described below. Thus, be sure that you keep track of these weights so that you are not surprised by a change in your overall grade at the end of the session.

Exams: I highly recommend studying in groups for exams. For the exams in this course you will **NOT** have access to a "cheat" sheet or notes. Bouncing ideas off of each other is a great way to prepare for these exams. We will have three exams, including the written final, in this course. Exam 1 will be given in class (50 minutes), the fourth week of class on **Friday, February 6**. Exam 2 will be given in class (50 minutes), the tenth week of class on **Friday, March 27**. The 2-hour written final exam will be given on **Thursday, May 7, 10:10 am - 12:10 pm** in our normally scheduled classroom.

Assignments: You will be given 9 programming assignments to complete. You will find the requirements for each programming assignment in your corresponding Canvas lab space under the "Assignments" section and through the Canvas calendar. Each one of these has been well thought-out and will guide you through solving a problem. I really hope that you view these assignments as a guide for learning the material and achieving the objectives presented in lecture. Also, note that all C/C++ code written in assignments must adhere to the **[recommended C Style and Coding Standards](http://eeecs.wsu.edu/~aofallon/Coding_Standard_Guide_CptS121.pdf)** (http://eeecs.wsu.edu/~aofallon/Coding_Standard_Guide_CptS121.pdf) or **[recommend C++ Coding](#)**

Standards (<https://google.github.io/styleguide/cppguide.html>); your TA will let you know if you are not adhering to these standards. Please upload assignments through your **lab** section in **Canvas** (<https://canvas.wsu.edu/>). Please also refer to the Calendar and the **course schedule** (<https://wsu.instructure.com/courses/1845745/pages/course-schedule>) for each programming assignment assigned and due date. All programming assignments must be submitted by *midnight* of the due date.

Quizzes: Quizzes will be given most Fridays to ensure that material presented in lecture is understood. You will find the requirements for each quiz in your corresponding Canvas lab space under the "Assignments" section and through the Canvas calendar. These will be take-home quizzes, in which you upload your solutions via your **lab** section in **Canvas** (<https://canvas.wsu.edu/>) by the following Monday by *midnight*. Please also refer to the Calendar and the **course schedule** (<https://wsu.instructure.com/courses/1845745/pages/course-schedule>) for each quiz assigned and due date. All quizzes are written to assess basic understanding of material. I would like for you to view these as a way to reinforce concepts. Quizzes may be rescheduled for students that have valid excuses (as determined by the instructor).

Labs: You will be given 13 labs to complete. You will find the requirements for each lab assignment in your corresponding Canvas lab space under the "Assignments" section and through the Canvas calendar. These labs will be conducted in-person. **You cannot complete labs remotely**, unless you have a valid excuse, i.e. illness, etc. Without a proper notification to your TA ahead of the scheduled lab time, you will risk not receiving credit for the lab. To receive full credit, you **must participate on a team** and complete at least 2/3 of the problems! Each lab will give you hands-on experience with using the C/C++ language to solve multiple problems. These weekly lab assignments also give you the opportunity to put into practice the techniques and concepts covered in the lectures under the supervision of a knowledgeable teaching assistant. You are encouraged to share ideas with your peers in lab! Take advantage of learning from each other! You will receive full credit for a given lab if (a) you work on a team, (b) complete 2/3 of the problems, (c) you show up and *actively participate* in the entire lab by making a sincere effort to complete all of the problems, and (d) you make a sincere effort to assist other students with the lab in the event that you finish before them. You may make up some labs if you have an excuse that is acceptable as determined by the instructor or TA, such as being sick, etc. **However, you are still responsible for completing the lab in your own time or attending a different lab for the week. If you decide to attend a different lab for the week, please be sure to email the TA of the lab and let him/her know that you will be attending the lab. You may find lab days, times, and TA emails above in the "Course Information" section under "Lab Times. You are responsible for ensuring that your lab grade is communicated to your permanent TA."**

Participation: You are expected to attend and participate in lectures and laboratories regularly, and to participate regularly in the **Canvas** (<https://canvas.wsu.edu/>) activity feeds. Participation will count as 2% towards your overall grade!

Assignment Weights:

- Two midterm exams (20% - 10% each)

- One written final exam (20%)
- Quizzes (5%) the weight of individual quizzes will be based on the number provided and the involvement of each one; ranging from 0.5-0.7% of your overall grade
- Programming assignments (33%) - the weight of individual assignments will be based on the number provided and the involvement of each one; ranging from 3-6% of your overall grade
- Labs (20%) - there are 13 labs for this course, each one is worth ~1.5% of your overall grade
- Participation (2%) – attendance and active participation in lectures, labs, and/or Canvas discussions

BONUS:

- Bonus assignments up to 2% each

Grading Scale:

Percentage	Grade
94-100%	A
90-93.99%	A-
86-89.99%	B+
82-85.99%	B
78-81.99%	B-
74-77.99%	C+
70-73.99%	C
66-69.99%	C-
62-65.99%	D+
58-61.99%	D

0-57.99%	F
----------	---



Tentative Topic Schedule (*not in any particular order*): **Detailed Schedule**

(<https://wsu.instructure.com/courses/1845745/pages/course-schedule>)

1. Data Structures
2. Lists
3. Stacks
4. Queues
5. Binary and Binary Search Trees
6. Recursion
7. Software Design and Engineering Concepts
8. Problem Solving Strategies
9. C++ Classes
10. Container Classes
11. Value Classes
12. UML Design Models
13. Generic Classes
14. Templating
15. Operator Overloading
16. Function Overloading
17. Algorithmic Analysis (Big-O)
18. Abstract Data types
19. Inheritance
20. Sorting Algorithms
21. Polymorphism
22. Intro to Graphics
23. Exception Handling
24. Design Patterns
25. Standard Template Library
26. Const, static, friend, pass-by-reference

University Syllabus

Students are responsible for reading and understanding all university-wide policies and resources pertaining to all courses (for instance: accommodations, crisis resources, policies on discrimination or harassment), which can be found in the university syllabus:

<https://syllabus.wsu.edu/university-syllabus>  (https://syllabus.wsu.edu/university-syllabus)