

Course Syllabus

CIS 22C: Data Abstraction and Structures

Course Instructor: Jennifer Parrish, *M.S. Computer Science*

Contact Information:

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- Office Phone: 408-864-8947

Office Location:

- Building F, Room 51F

Office Hours:

- Monday 11:30am - 12:20pm (ATC 203B)
- Tuesday 11:30am - 12:20pm (ATC 203B)
- Wednesday 2:30pm - 3:20pm (ATC 203B)
- Thursday 11:30pm - 12:20pm (F 51F)
- Friday 10:00am - 11:15pm (online)
- Friday 1:15pm - 3:45pm (online)

Online Lab:

- Friday 2:30pm - 3:45pm
- Note: The instructor will be online and available by email during the online lab hour. However, you are not required to do your lab during this time. All lab assignments will be due on Friday at midnight.

Course Description:

- Application of software engineering techniques to the design and development of large programs; data abstraction and structures and associated algorithms: stacks, queues, linked lists, trees, graphs, and hash tables; internal and external sorting; use of recursion; team project.

Prerequisites:

- CIS 22B or CIS 35A. Advisory: MATH 212 or equivalent.

Student Learning Outcomes:

- Read, analyze and explain advanced data structures programs.
- Design solutions for advanced problems using appropriate design methodology incorporating advanced data structures programming constructs.
- Create and analyze efficiency of advanced level data structures algorithms, code, document, debug, and test advanced data structures programs using multiple source and header files.

Course Website:

- Course information, lectures, labs, and assignments can all be found on our main course website: <http://jenniferparrish.net>
- We will also be using [Catalyst](#) for assignment submissions and other tasks.

Required Text:

- Main, Michael and Walter Savitch. *Data Structures and Other Objects Using C++*. 4th Edition. Addison Wesley. ISBN: 978-0-13-212948-0

Important Dates:

- Monday, January 4 - First Day of Winter Quarter
- Saturday, January 16 - Last Day to [Add](#) Quarter-Length Classes
- Sunday, January 17 - Last Day to [Drop](#) for a [Full Refund or Credit](#)
- Monday, January 18 - Last Day to Drop with No Record of Grade
- Monday, January 18 - Holiday: Observance of Martin Luther King Jr.'s Birthday
- Friday, January 29 - Last Day to Request a [Pass/No Pass Grade](#)
- Friday, February 12 - Holiday: Observance of Abraham Lincoln's Birthday
- Monday, February 15 - Holiday: Observance of George Washington's Birthday
- Friday, February 26 - Last Day to Drop with a "W"
- Saturday, March 19 - Friday, March 26 - [Final Exam](#) Week
- Friday, March 25 - Last Day to Apply for a [Winter Degree or Certificate](#)
- Friday, March 25 - Last Day of the Winter Quarter

Class Atmosphere:

- Students are expected to behave professionally, both in terms of their demeanor in class and in terms of their approach to their assignments.

- Students are to have cell phones turned off while in the classroom.
- Students are expected to be on time. If you must be late, please enter the room quietly.
- During lecture, students are to be quiet and attentive when their classmates or instructor are speaking.
- During lecture, students are to have *all* of their screens turned off.
- Students are expected to participate in all in-class activities.
- Students are expected to treat each other and the instructor courteously and respectfully.

Academic Success and Support Services:

- If you need disability-related accommodations, please notify the instructor and the Disability Support Services.
- For more information, please visit the [Disability Program Support Services website](#).

Plagiarism and Cheating:

- The Student Code of Conduct states that plagiarism, in-class cheating, out of class cheating and furnishing false information are not allowed under any circumstances.
- Any student found violating the [Academic Integrity Section of the Student Code of Conduct](#) will be confronted by the instructor.

- Depending on the nature and extent of the violation, the student may receive a warning, may receive a lowered grade on the assignment or in the course, or may be failed on the assignment or in the course.
- The student may also face administrative consequences, including being placed on disciplinary probation, being placed on disciplinary suspension, being expelled, or being subject to arrest and or heavy fines if the academic dishonesty offense violates state or federal law.
- In brief: Cheating in any form is a serious matter and will not be tolerated.

Assignment Integrity:

- You are expected to work alone on some assignments and with other students on other assignments as listed in the assignment specifications. When working alone, you must do all your own work. You may discuss assignments with other people, but ultimately you must write the code yourself. Not writing all the code yourself is cheating.
- When working with others, the assignment specifies how you must contribute. Group work can accelerate learning, but only when each student takes responsibility for mastering all the assigned material. Little is learned if each student works only part of the assignment and merely copies answers for the rest.
- If the assignment seems too hard to complete without more help, whether working in groups or not, then you should contact me. My job is to help you understand the material. As an option, you may discuss your assignment, and show your code to, another De Anza College Instructor, if they agree. Note that this list does not include tutors. Tutors must follow the same rules for acceptable help as other non-students.

- You may still help other students, and receive help from other students (or tutors), and I encourage you to do so. The following lists are intended to help clarify the rules about appropriate assistance for assignments:

Acceptable Help:

1. Showing others how to use or solve problems with computer applications such as compilers, text-editors and debuggers, or receiving such help.
2. Discussing problems and ideas for solving problems with other students or tutors.
3. Describing your algorithms to other students using diagrams, psuedocode or natural-language statements (unless that was the assigned homework).
4. Looking at another person's code and pointing out an error, as long as you do not write, type, dictate, or otherwise communicate the actual program code required by the assignment.

Tip: if you need to write code when explaining a problem, then use an example that is not part of the assignment.

Unacceptable Help:

1. Typing or writing any homework solution (or parts of a homework solution) for another person, or allowing someone to type or write a homework solution for you.
2. Looking at another person's homework code while typing or writing your homework code.

3. Listening to someone else dictate homework code while typing or writing, or dictating to someone else the homework code to type or write.
4. Providing a copy of your assignment solution, or any other person's solution, to anyone who is taking this course or might take this course in the future, including posting your solution online or emailing it to someone.
5. Receiving a copy of an assignment solution, or a part of a solution, from anyone until after you make a final submittal of your assignment and the due date has passed.

These are not all-inclusive lists. Students are expected to interpret and apply the overall concepts of academic honesty in good faith. If you have questions about what is permissible, please ask me.

Also, note that these rules do not prohibit you from sharing assignment solutions with other students after both you and the other student have made a final submittal of the assignment and the due date has passed. Reviewing other people's solutions can help you learn, but it is cheating unless you have already completed the assignment on your own.

Grading Policies:

- Grading is done by a point system, combined with a percentage scale, to determine the final grade.
- Percentage of grade that contributes to overall final grade for each component of the course are as follows:

10% Programming Assignments

10% Lab Assignments

5% In-Class Assignments (submitted as part of each class - attendance is important!)

15% Course Project
15% Weekly Quizzes
20% Midterm Exams (2 Exams)
25% Final Exam

- Grades will be assigned as follows:

97 - 100% A+
94 - 96% A
90 - 93% A-

87 - 89% B+
84 - 86% B
80 - 83% B-

77 - 79% C+
70 - 76% C

67 - 69% D+
64 - 66% D
60 - 63% D-

0 - 59% F

Assignments and Late Policies:

- All homework assignments will be provided with a due date that allows reasonable time for completion.
- **All work must be turned in on time. No late work will be accepted!**
- However, there will be a one-time exception on the late work policy on homework assignments for students who face unexpected situations. For this one-time exception, students can turn an assignment in up to 48 hours late for full credit. However, the student must come to office hours to submit the assignment. No late assignments will be accepted by email.
- In addition, I will drop the lowest lab grade (i.e. it will not be calculated as part of your grade) and the lowest 2 in-class activity grades.
- Once per week, there will be a short quiz covering material from the past week's lectures and homework assignments. Quizzes must be taken on time and in class.

- **No makeup quizzes will be given.** However, each student's lowest quiz score will be dropped, i.e. not considered as part of the final grade for the course.
- Midterm exams ***must*** be taken in class on the date given. All exams are written on our course schedule to give students sufficient notice.
- In the case of illness or emergency, and at the instructor's discretion, a student who must miss an exam will have their final exam score substituted for the missed exam.
- You must pass the final exam to pass the class.
- The final exam ***must*** be taken on the date stated in the course catalog. **No makeup final exams will be given.**

~ Have a Great Quarter! ~