

CSCI 33500 Software Analysis and Design 3

Instructor: Jaime Canizales

Monday - Thursday, West Bldg W604, Summer 2025

Textbook: Data Structures & Algorithm Analysis in C++, 4th Edition. Mark Allen Weiss. Pearson, New York. ISBN: 013284737x.

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Office Hours: By appointment.

Course Description:

The principal objective of this course is to further your understanding of the design and analysis of algorithms and data structures. This includes the introduction of new abstract data types, including hashes, heaps, various forms of trees, graphs, and the sorting problem from a higher perspective than was [supposed to be] presented in CSci 235. It also covers worst and average case behavior analysis and optimality, and to a much smaller extent, polynomial time complexity classes and theory. Another objective of the course is to develop your C++ programming and software engineering skills a little more. This course requires that you write more complex software than you have done in the preceding courses.

Grading:

Midterm Exam: 40%

Final Exam: 40%

Project: 20%

Exams: There will be one midterm and a final. The first midterm will cover the first five chapters of the textbook. The final will cover chapters six to nine. These chapters are not covered in their entirety, check notes to reviews topics covered from chapters.

Projects: There will be three assignments, which will be posted on blackboard.

Hunter College Official Policies:

0.1 Academic Integrity Statement:

“Hunter College regards acts of academic dishonesty (e.g., plagiarism, cheating on examinations, obtaining unfair advantage, and falsification of records and official documents) as serious offenses against the values of intellectual honesty. The College is committed to enforcing the CUNY Policy on Academic Integrity and will pursue cases of academic dishonesty according to the Hunter College Academic Integrity Procedures.” URL: <https://hunter.cuny.edu/center-for-online-learning/online-learning-resources/academic-integrity-policy/>

Please consider adding the following statement from the policy as well:

- Copying from another person or from a generative AI system or allowing others to copy work submitted for credit or a grade. This includes uploading work or submitting class assignments or exams to third party platforms and websites beyond those assigned for the class, such as commercial homework aggregators, without the proper authorization of a professor. Any use of generative AI tools must be in line with the usage policy for specific assignments as defined in the course of the syllabus and/or communicated by the course instructor.

- Using artificial intelligence tools to generate content for assignments or exams, including but not limited to language models or code generators, without written authorization from the instructor

0.2 Anti-harassment statement:

Bullying, cyberbullying, online hate, intimidation, threats, harassment, and pressure to share schoolwork are all forms of violence. CUNY holds a zero tolerance stance towards all such acts. The University is committed to prevention of any form of bullying, will respond promptly to threats and/or acts, and will protect victims of bullying from retaliation. As a criminal matter, the New York Attorney General defines cyberbullying as the use of email, websites, instant messaging, chat rooms, text messaging and digital cameras to antagonize and intimidate others. Disrupting a teleconferencing platform (such as Zoom/Skype/Blackboard Collaborate Ultra) is a federal crime.

0.3 Hunter College Policy on Sexual Misconduct:

“In compliance with the CUNY Policy on Sexual Misconduct, Hunter College reaffirms the prohibition of any sexual misconduct, which includes sexual violence, sexual harassment, and gender-based harassment retaliation against students, employees, or visitors, as well as certain intimate relationships. Students who have experienced any form of sexual violence on or off campus (including CUNY-sponsored trips and events) are entitled to the rights outlined in the Bill of Rights for Hunter College.

- Sexual Violence: Students are strongly encouraged to immediately report the incident by calling 911, contacting NYPD Special Victims Division Hotline (646-610-7272) or their local police precinct, or contacting the College’s Public Safety Office (212-772-4444).
- All Other Forms of Sexual Misconduct: Students are also encouraged to contact the College’s Title IX Campus Coordinator, Dean John Rose (jtrose@hunter.cuny.edu or 212-650-3262) or Colleen Barry (colleen.barry@hunter.cuny.edu or 212-772-4534) and seek complimentary services through the Counseling and Wellness Services Office, Hunter East 1123. CUNY Policy on Sexual Misconduct Link: <http://www.cuny.edu/about/administration/offices/la/Policy-on-Sexual-Misconduct-12-1-14-with-links.pdf>”

0.4 ADA Statement:

“In compliance with the ADA and with Section 504 of the Rehabilitation Act, Hunter College is committed to ensuring educational access and accommodations for all its registered students. Hunter College’s students with disabilities and medical conditions are encouraged to register with the Office of AccessABILITY for assistance and accommodation. For information and appointment contact the Office of AccessABILITY located in Room E1214 or call (212) 772-4857 /or VRS (646) 755-3129.”

0.5 Change Policy:

Sample Language: “Except for changes that substantially affect implementation of the evaluation (grading) statement, this syllabus is a guide for the course and is subject to change with advance notice.” (Alternate use: “Note that details of this document are subject to change if the need arises.”)

Wish you all a great start to the semester.