

# CSCI 33500 Software Analysis and Design 3

Instructor: Jaime Canizales

Monday - Thursday, West Bldg W207, Spring 2024

**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: 30%

Final Exam: 30%

Project: 40%

**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.

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