Data Structures

Introduction

CS 225
Brad Solomon & G Carl Evans

August 21, 2023
Learning Objectives

Introduce course staff

Introduce course policies

Introduce course goals and general structure

CS 199-225: Performance
Thierry Ramais
How to contact us?

Admin Email: cs225admin@lists.cs.illinois.edu

Make sure the subject is meaningful!
It may take a day or two to get a response.

Discord: https://discord.gg/YuEwhnR

Don’t DM course staff on Discord

Be respectful to one another online
CS 225 — Course Goals

Understand foundational data structures and algorithms

Justify appropriate algorithms for complex problems

Improve coding, debugging, and brainstorming skills
Everything about CS 225

https://courses.engr.illinois.edu/cs225/

Information on:
- Staff
- Communications
- Lab Sections
- MPs
- Exams
- Grading
- Academic Integrity
Discord Server
Link can be found under Course Information.

Use Discord to connect with peers

Use Discord to ask questions during lecture

**DO NOT** use Discord to post inappropriate content

**DO NOT** use Discord to DM course staff

**DO NOT** use Discord to spam or harass other students
Plagiarism Policy

Don’t share your code with anyone! Ever!

Don’t use or look up code solutions from any source

Carefully consider how you discuss problems with peers

Infractions will result in 0s on the assignment AND a full letter grade drop at the end of the semester.

All infractions will be reported through FAIR and remain on your permanent record.
## Grading — Point Distribution

<table>
<thead>
<tr>
<th>Category</th>
<th>Contribution</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machine Problems</td>
<td>360</td>
<td>60 points each</td>
</tr>
<tr>
<td>Lab Assignments</td>
<td>120</td>
<td>10 points each</td>
</tr>
<tr>
<td>Exams</td>
<td>360</td>
<td>60 points each</td>
</tr>
<tr>
<td>Final Exam</td>
<td>160</td>
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</tbody>
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All MPs have a one-day late policy for 93% credit

**There are no extensions for labs**
## Grading — Final Grades

<table>
<thead>
<tr>
<th>Points</th>
<th>Grade</th>
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<th>Grade</th>
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</thead>
<tbody>
<tr>
<td>[930, ∞)*</td>
<td>A+</td>
<td>[930, ∞)*</td>
<td>A</td>
<td>[900, 930)</td>
<td>A-</td>
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<tr>
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<td>B+</td>
<td>[830, 870)</td>
<td>B</td>
<td>[800, 830)</td>
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<tr>
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<td>[730, 770)</td>
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<tr>
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<td>D+</td>
<td>[630, 670)</td>
<td>D</td>
<td>[600, 630)</td>
<td>D-</td>
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<td></td>
<td>(600, 0]</td>
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* An A+ requires both a minimum amount of points and the support of one or more course staff members who have found some part of your work exceptional.
Extra Credit Opportunities

MP Extra Credit Submission (40 pts)

Problems of the day (40 pts)

Extra Credit Project (40 pts)

Extra credit is capped at 100 points.
Other Syllabi Policies

Adhere to the CS Values and Code of Conduct

Your mental and physical health is important
What is this course about?
Course goals

- Conceptualize commonly used data structures
- Implement intermediate difficulty problems in C++
- Justify design decisions when building algorithms
- Improve your foundation of CS theory
What about C++

Lectures from Previous Semesters Covering C++ Available Here
https://mediaspace.illinois.edu/playlist/dedicated/177553201/1_s10ctiib/1_z2cz05fi
Exam 0 (August 29 — 31)

An introduction to CBTF exam environment / expectations

Quiz on foundational knowledge from all pre-reqs

Practice questions can be found on PL

Topics covered can be found on website

Registration starts August 24
(Optional) Open Lab This Week

This week’s lab is open office hours

Focus is making sure your machine is setup for semester

Installation information available on website