

# Welcome to ...

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## CSc 345: Analysis of Discrete Structures

Fall 2024

### Course Information Overview

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## Announcements

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*(Expect a slide or two of announcements at the start of each class.)*

- **Handouts:**
  1. **Syllabus Summary** – a fraction of the full version!
  2. **Background Survey** – distributed/collected at end
- We will get off to a fast start
  1. Homework #1 will be assigned Thursday, and will be due a week later
  2. Program #1 will be assigned next Thursday
- This is the only section of 345 — hope you like it! 😊

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# Catalog Info

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Class: CSc 345–001, Analysis of Discrete Mathematics

Credits: 3

Meets: 3:30 – 4:45 p.m. Tuesdays and Thursdays

Room: CESL 102

Prereqs: CS Advanced Standing, CSc 210, and CSc 244

Desc: Introduction to and analysis of algorithms and characteristics of discrete structures. Course topics include algorithm analysis techniques, recurrence relations, structural induction, hierarchical structures, graphs, hashing, and sorting.

**Final:** [Wednesday, December 18th, 2024, 3:30 – 5:30 p.m.](#)

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# Instructor and TAs

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Instructor: Lester I. McCann, Ph.D., Professor of Practice

GTA: Rubin Yang\*\*

UGTAs: Lucas Almeida\*\*

Hamad Ayaz\*\*

Sohan Bhakta\*

Hamlet Taraz\*\*

\* Has been a TA previously

\* Has taken a class w/ McCann previously

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# Information Resources

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Looking for class information and materials?

- [Class D2L Site](#) (textbook, links to web page content):
  - [d2l.arizona.edu/d2l/home/1478209](https://d2l.arizona.edu/d2l/home/1478209)
- [Class Web Page](#) (guided & completed slides, handouts):
  - [cs.arizona.edu/classes/cs345/fall124](https://cs.arizona.edu/classes/cs345/fall124)
- [Piazza](#) (Q&A):
  - [piazza.com/class/lzna9bl5o1s29g](https://piazza.com/class/lzna9bl5o1s29g)

We'll also have office hours (OHs) for in-person help and practice. Times and locations to be announced!

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## Noteworthy Dates

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Exams:

- Exam #1: Thursday, October 10
- Exam #2: Thursday, November 21
- **Final Exam: Wednesday**, December 18, 3:30–5:30 p.m.

No Class Meeting On:

- Thursday, November 28 (Thanksgiving)

Drop / Withdraw Deadlines (for individual classes):

- Sunday, September 8: No-'W' Drop Deadline
- Sunday, November 3: Last date to withdraw

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# Grades and Grading (1 / 6)

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## Grade Breakdown:

4 Homeworks	=	20%	(total; 5% each)
4 Programs	=	24%	(total; 6% each)
$n$ Quizzes	=	10%	(total of your best 5 of $n$ )
2 Midterm Exams	=	30%	(total; 15% each)
Final Exam	=	16%	(comprehensive!)
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TOTAL	=	100%	

We do not grade on attendance or class participation, but you'll still want to attend regularly (e.g., for quizzes)

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# Grades and Grading (2 / 6)

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## Homeworks

- Due at the start of class one week after being assigned
  - You may use at most one 'late day' per homework
  - You start with five 'late days,' shared with programs
- Question types are mostly problem-solving
- You will submit answers as PDFs to Gradescope
  - We recommend that you word-process your answers (illegible answers are assumed to be incorrect)
- Graded by the TAs within 1–2 weeks
- Regrade requests accepted for one week thereafter

**See the full version of the syllabus for the details!**

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## Grades and Grading (3 / 6)

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### Programs

- “Programs? In a theory class?”
  - I view CSc 345 as part theory and part application
- Due at the start of class **two weeks** after being assigned
  - There is no limit on how many of your remaining late days may be used on a single program
- All programs will be submitted via **turnin** on lectura
- Graded by the TAs within  $\sim 2$  weeks
  - Programs are graded on documentation and coding style, as well as on correct execution
- Regrade requests accepted for one week thereafter

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## Grades and Grading (4 / 6)

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### Quizzes

- I plan to have  $\sim 7$  unannounced quizzes this semester (well, *mostly* unannounced; all but Quiz #1)
  - Usually given in the last 10–15 minutes of the period
- At the end, we’ll only count your best 5 quizzes (*This means you can miss a couple quizzes and still do fine.*)
- Electronic devices **may not** be used on quizzes!
- Graded by the TAs within one week
- Regrade requests accepted for a week after grading is done

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# Grades and Grading (5 / 6)

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## Midterm Exams

- Will cover the material since the previous midterm
- Question types mostly short-answer & problem-solving
- Like quizzes, electronics **may not** be used on exams
- **I do not give make-up exams!**  
*(Why not? Because I'll replace your lowest midterm's score with a copy of your final exam's score if 66.7% of you do your class evaluations!)*
- Graded by the class staff within two class meetings
- Regrade requests accepted for a week **by email to McCann**

**See the full version of the syllabus for the details!**

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# Grades and Grading (6 / 6)

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## Final Exam

- Is comprehensive (covers all topics discussed in class)
- Consists of short-answer & problem-solving questions
- I review finals of students near the next-higher letter grade
  - Thus, regrade requests should not be needed
- Your final exam score could replace your lowest midterm
  - See previous slide!
  - Allows you to miss a midterm, or have an off-day, and still do well in the class

**See the full version of the syllabus for the details!**

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## “Why Should I Read the Full Version of the Syllabus?”

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Because:

- There are many more details within it, such as:
  - A detailed topic outline, links to other free online textbooks, when to expect replies to questions, applying for disability accommodations, etc.
- It has links to Department, University, and ABoR policies that you should know about, including:
  - Attendance, codes of conduct, FERPA, incompletes, etc.
- Ignorance of the syllabus will not excuse you from its content
- And, of particular note, it covers . . .

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## Academic Dishonesty (a.k.a., Cheating)

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Four words say it all: **Do Your Own Work!**

- The assignments in this class are **individual** assignments, meant to help prepare you for the exams (which are also individual activities!).
  - If you can't do assignments, how will you do on exams?
- If we catch you cheating, the *minimum* sanction is a zero on the assignment and completion of an expensive academic integrity workshop.
- Stuck? The TAs and I are here to help you get unstuck!
  - We answer questions in office hours and on Piazza.
- Not sure that an action is acceptable? **Ask us first!**

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# Schedule for Weeks 1 and 2

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- This week (Week 1):
  - Today: Class Info, Start Topic 1 (Review),  
**Background Survey**
  - Thursday: Continue Topic 1, **Assign Homework #1**
- Next week (Week 2):
  - Tuesday: Finish(?) Topic 1
  - Thursday: Start Topic 2 (Algorithm Analysis),  
**Homework #1 due, Assign Program #1, Quiz #1**

Curious about the items in red?

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## Administrative Drops (A Last Syllabus Detail)

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Students who do not turn in **AT LEAST ONE** of:

- **Background Survey**,
- **Homework #1**, or
- **Quiz #1**

will be administratively dropped from the class.

*(Why? Such ‘ghosts’ almost always either withdraw later, or ‘disappear’ without withdrawing and thus get a failing grade.)*

Plan to submit them all — two of the three count toward your class grade!

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# Let's Do The Background Survey!

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## Instructions

- The Background Survey is NOT graded! (No stress!)
- Take one copy, pass the rest down the row
- Read and follow the directions
- Got a question? Raise your hand; we'll come to you
- When you are done, hand your paper to me or to a TA; you're free to go! We'll see you next time!