

# CS 240

## Data Structures and Algorithms I

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# The Final

**Format:** same as midterm

- Open book/notes/printed material
- No calculators/electronics
- Bring your own paper/pen/pencil

**Length:** same as midterm

- But now you have double the time

**Time:** 9:10 – 11:10 AM

# The Final

## Material

Things we've covered since the midterm:

- Linked lists
  - Implementation (Nodes with two parts)
  - Manipulating lists
  - Reasoning about the efficiency of different methods
- Recursion
  - Iteration vs. recursion
  - How computers use stacks to trace recursive calls
  - Patterns of recursion (left/right folds, tail recursion)
- Searching
  - Linear vs. binary search
  - Hashing
  - Generalizing hashing to tables (dealing with collisions, etc.)

Prior material is **implicit**: you still need to write code, analyze big- $O$  notation, and understand stacks & generics.