

## Lecture 14: May 3, 2023

**Reading:** *zyBooks text*, §9.4

**Assignments:** Homework 2 and Extra Credit 2, due May 10

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1. Announcements
  - (a) Tutoring available from the CS Tutoring Club; sign up information in an announcement
2. Files
  - (a) Review files and file pointers — mention file descriptors as underlying mechanism
  - (b) Standard I/O library (*stdio.h*)
  - (c) Standard input, output, error (**`stdin`**, **`stdout`**, **`stderr`**)
  - (d) Opening, closing files (*fopen*, *fclose*)
3. Reading, writing characters and lines
  - (a) Reading text data as lines (*fgets*, *gets* — do not use this!)
  - (b) Reading text data as characters (*fgetc*, *getc*, *getchar*, *ungetc*)
  - (c) Writing text data as lines (*fputs*, *puts*— latter adds a trailing newline)
  - (d) Writing text data as characters (*fputc*, *putc*, *putchar*)
4. Reading, writing text data with a fixed format
  - (a) Reading in text data with a fixed format (*fscanf*, *scanf*)
  - (b) Outputting text data with a fixed format (*fprintf*, *printf*)