DATA STRUCTURES COURSE INFO

* Wednesday: Start new content material.
* Thursday: Office Hours with Scott A. Overview of Assignment
* Thursday:  Sunday - post to the discussion on different days
* Sunday: Office Hours with Scott A.
* Monday: Office Hours with Scott A.
* Tuesday: Final postings (a total of three or more, preferably 4) to the discussion due. Quizzes and Homework due, OR the Lab assignment is due.

Because of the complexity of the course, we have provided some recommendations that may assist you in finding answers.

1. Review the material, including texts, video lectures, and lecture slides.
2. Review the discussion forum to see if a similar question has been asked.  Note that discussion is arranged topically so be sure to identify the best thread of discussion for your question.
3. If your question has not been asked/answered, consider posting it for review.  You should receive an answer shortly, and others with the same question will benefit.
4. Attend an office hour session and gain additional insight regarding content and assignments.  Office hours present a wonderful opportunity to deepen your understanding and ask questions regarding any aspect of the course.
   * If unable to attend, you may wish to review sessions at your convenience.  All sessions are recorded and posted shortly after they are held.
5. If you still have unanswered questions, you may wish to connect directly via email.
   * If your question involves the discussion forum and discussion grading, please contact Dr. Shah (Spring/Fall) or Dr. Rubey (Summer)
   * If your question relates to office hours or quizzes, please contact Prof. Almes.
   * If your question relates to labs or homework assignments:
     + Please consider contacting the grader for your section first for questions about a specific comment or grade.
     + For general questions, grading concerns, or deadline issues, please contact Dr. Cost.
   * For all other questions, including course logistics, please contact Dr. Cost.

To access office hours, go to the 'Zoom' tab within the course. All office hours sessions and recordings are on this page.

Office hours are in in EST time:

|  |  |  |
| --- | --- | --- |
| **Weekday** | **Time** | **Purpose** |
| Thursdays | 9:00 PM | Overview of assignment, background on question |
| Sundays | 8:30 PM | Q&A session driven by students |
| Mondays | 8:30 PM | Q&A session driven by students, wrapping up module |

All sessions are planned for 2 hours, however may end as early as 15 minutes after the start based on attendance to allow more one on

Recordings will be made every Thursday regardless of attendance, while Sundays and Mondays may not be recorded with low attendances ~<3 students

Python Read One Character at a Time

from pathlib import Path

# Assumes there is a file called 'some\_file.txt' in this directory

test\_file = Path('some\_file.txt')

with test\_file.open('r') as opened\_file:

while True:

char = opened\_file.read(1)

if not char:

print("End of file")

break

elif char == '\n':

print("----New Line----")

else:

print(f"Read this char: {char}")

Course Resources

Array Calculations

[Array CalculationsLinks to an external site.](http://byteology.weebly.com/blog/array-and-its-address-calculation)

Algorithms and Complexity

[Big O Cheat SheetLinks to an external site.](http://bigocheatsheet.com/)

[Notes on Time and Space ComplexityLinks to an external site.](http://www.leda-tutorial.org/en/official/ch02s02s03.html)

[Calculating Space ComplexityLinks to an external site.](https://www.google.com/books/edition/_/JPkBDj1C53YC?hl=en&gbpv=1&pg=PA31&dq=calculating+space+complexity)

[Time (and Space) Complexity of Various Sorting AlgorithmsLinks to an external site.](http://scanftree.com/Data_Structure/time-complexity-and-space-complexity-comparison-of-sorting-algorithms)

[Complexity AnalysisLinks to an external site.](https://www.cs.utexas.edu/users/djimenez/utsa/cs1723/lecture2.html)

Misc

[Prefix/Postix Maniputation - Examples](https://filebox.ece.vt.edu/~ECE2574/meeting/11-recursionapp1/slides.pdf)