8/26 CSP(L) notes:

### **CSP(L) Class Notes - 8/26**

#### **Lecture Overview**

* **Core Concepts:**
  + **Formalizing Problems:** How to define a problem, choose an approach, and consider trade-offs.
  + **CS Fields:** Computer Science (CS) covers various fields focused on automating solutions to real-world problems.
  + **Problem-Solving:** Learn how to think about problems, design solutions, and ensure correctness and efficiency.
  + **Programming:** Aim to create reliable programs with correct algorithms, and ensure proper documentation.
* **Key Skills:**
  + **Thinking Like a Computer Scientist:** Essential for success in this course.
  + **Algorithm Selection:** Choose the right algorithm for solving problems.

#### **Supplemental Instruction & TA Info**

* **TA Office Hours:**
  + TA is located in the basement of McClain (MLH) Hall, while the top floor is the main point of contact.
* **Supplemental Instruction Sessions:**
  + **Start Date:** Tuesday, September 3.
  + **Schedule:**
    - Monday: 12:30 pm - 1:20 pm
    - Tuesday: 10:00 am - 10:50 am
    - Thursday: 7:00 pm - 7:50 pm
  + **Location:** Academic Resource Center, Lower Level of Iowa Memorial Union.
  + **Session Focus:** Will cover problems similar to those discussed in lectures.

#### **Class Resources**

* **ICON:**
  + **Content:** Lecture recordings (useful but not interactive).
  + **Piazza:** Best way to get help. Features public/private posts, anonymous options, and a quick response time (avg. 22 min). Available 24/7.
* **Lab/Discussion:**
  + **Start Date:** Next week, September 3.
  + **Details:** Random partner assignments every week.
  + **Lab Room:** A05 for labs starting September 3.
* **Reading & Materials:**
  + **Textbook:**
    - CS1 textbook is $140, but a free, open-source textbook is available.
    - **Required Reading:** "Python for Everybody" by Charles Severance ([Link](https://www.py4e.com/book)).
  + **Important Readings:**
    - TP2: "How to Think Like a Computer Scientist."
    - TP3: New online interactive version.
    - Read [P4E] C1.
* **Calendar:**
  + **Recommendation:** Link ICON Calendar to Google Calendar.

#### **Assignments & Grading**

* **Question of the Day (QotD):**
  + 5% of grade; 48-hour completion window.
* **Lab Assignments:**
  + 14% of grade; 10-12 assignments throughout the semester.
* **Homework Assignments:**
  + 15% of grade; 2-3 larger programming projects.
  + **Due Date:** Fridays at midnight.
  + **Late Policy:** Accepted until Sunday at midnight with a 75% grade cap.

#### **Academic Integrity**

* **Important Guidelines:**
  + **No Use of External Code/AI:** Using internet code or AI-generated code will result in being reported, with potential suspension or expulsion.
  + **Collaboration Rules:** Do not share or discuss solutions; focus on discussing concepts and ideas.
  + **Zero Tolerance:** The instructor will report any violations.

#### **Communication & Help**

* **Questions:**
  + Instructor prefers questions during class or via TA sessions.
  + TA sessions are open to all students, not just specific to your section.
  + Administrative and grade-related questions should be addressed to the instructor during office hours or via email (include CS:1210 in the subject line).
* **Class Engagement:**
  + **Attendance:** Crucial for success.
  + **Engagement:** Watching videos is not a substitute for attending class.
  + **Proactivity:** Don’t procrastinate; code daily, especially on 2-week assignments.
  + **Problem Solving:** Problems are rarely solved in one sitting; continuous refinement is key.

#### **Exams**

* **Format:** Exams will be on paper.

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* How do i formalize a problem, choose an approach, trade offs based off that choice.
* CS is many different fields
* CS is automating solutions to real world problems.
* How to think about problems, how to design and express that solution, correctness and efficiency
* Get right program to work all the time, right algorithms approach, documented
* You need to think like a computer scientist
* Top floor mcclain(MLH) hall for TA, he is in basement

Supplemental Instruction sessions will be held regularly starting Tuesday, September 3:

1. Monday from 12:30pm-1:20pm;
2. Tuesday from 10:00am-10:50am; and
3. Thursdays from 7:00pm-7:50pm.

All sessions will be held in the Academic Resource Center, on the lower level  
of the Iowa Memorial Union. Watch video

* He will work problems similar to lecture, he was in class last year.^^^
* Class will be posted on ICON, wont hear questions and its boring, but useful to go back.
* LAB/disscussion starts next week 9/3, random partner. Every week
* Piazza, discussion board, best way to get help, public or private, you can post anonymously if u want, he will know who u are though, 1200 last year, avg response time 22 min. 24/7
* A05 for lab room, sept 3
* Responsible for material posted on ICON, r**eading assigned for wednesday morning**.
* Have to use uiowa email to write to him.
* Cs1 textbook is 140, but gives us free open source textbook. Still need to read it. Python for everybody by Charles Severance <https://ww.py4e.com/book>
* TP2: How to think like a computer scientist,
* There is new TP3, online interactive version
* [Read [P4E] C1](https://uiowa.instructure.com/courses/236563/assignments/2263712)
* LINK ICON Calender to google calender
* Question of the Day (QotD: 5%): 48 hours
* Lab assignments (Labs: 14%): There will be 10-12 laboratory assignments
* Homework assignments (HWs: 15%): There will be 2 (or possibly 3 smaller) multi-week homework assignments consisting of larger programming projects over the course of the semester. You can expect to have just under 2 weeks for each assignment Important: homework assignments will be due Friday at midnight. Late assignments will be accepted until Sunday at midnight, but grades on late assignments will be capped at 75% of the original credit.
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* Academic Intergrity:
* never use code from internet, use AI, we will be reported, suspended or expelled
* Do not share work, u will both get in trouble
* Do not discuss solutions, talk about concepts and ideas.
* He will report 100%
* He likes questions, raise hand, go to TA help session, TA help sessions available to all students, not just yours, go to supplemental instruction
* Questions about grades and administration questions, go to him, private stuff in person at office hours and email. Make sure to include CS:1210
* He likes laptops

# Axions for success

* *Come to class, Do the work, Ask for help,*
* *You will not master this material if you do not engage,*
* *Watching video is not the same as attending class*
* *Ask questions. There are no dumb questions. Ever*
* *Dont procrastinate: assignments are meant to be challenging:*
* Code a little bit everyday, especially 2 week assignments, they are meant to be hard
* *Think first, code last.*
* *Problems are rarely solved in a single sitting.*
* *Practice, continuous refinement: code, test, debug, repeat*
* *Reading AI generated code is not the same as doing it yourself.*
* No extensions for QOTD, or late labs
* Homework:. Late assignments will be accepted until Sunday at midnight, but grades on late assignments will be capped at 75% of the original credit. You can turn in partial solutions
* ***CS is about programming, its really all about learning to solve problems***
* Wordle haha

*Exam is on paper*

*HoBaNe*