

(Class will start at 12:35 today to give everyone time to join)

Fall 2021

CSE 101: Computer Science Principles

LECTURE 0 – COURSE INTRODUCTION

ALEX KUHN



Some Tips on Using Zoom

Can send text chat messages

- Please feel free to write in questions at any time

Can mute / unmute yourself to talk

Just re-join if you lose connection to Zoom

Make sure to login to Zoom with your Stony Brook email address

Please send me any feedback if you have any issues or suggestions

Course Information

CSE 101: Computer Science Principles

Course webpage:

<http://www3.cs.stonybrook.edu/~alexkuhn/cse101-fall2021/>

Lecture: Tue/Thu 5:00-6:20 PM

Lab: Mon: 12:30-1:50PM

Staff

Instructor

- Alex Kuhn
- Office: B423
- Email: alex.kuhn@sunykorea.ac.kr
- Office Hours: Mon 2-3:30 pm and Wed 3-4:30 pm via Zoom
 - Different Zoom link than class (also posted on course website):
<https://stonybrook.zoom.us/j/92529926375?pwd=WEtiWHg5SytjeHhDNUdKVC9XT3pkZz09>

Teaching Assistants

- Graduate TA (Grading)
 - Irina Kim (irina.kim@stonybrook.edu)
 - Office hours will be posted on course website later this week
- Undergraduate TAs (Tutoring)
 - Will be posted on course website later this week

Announcements

Please connect to the same Zoom URL each class

If classes go in-person, bring your laptop each class

- Classes will involve lectures, demos, and some in-class activities
- Labs will involve coding in class

General Information

For non-CS majors:

- This course is an excellent way to get an introduction to what computer science is all about and learn how to program

Many non-CS jobs require or benefit from some programming

- Data scientist, researchers, project manager, designer, most jobs at technology companies

For CS majors:

- This course is the starting points for your CS career

This course assumes no background knowledge of programming

Course Overview

CSE 101

- Introduces the important, central ideas of computer science
- Explores computational thinking and problem solving
- Covers the fundamentals of computer programming

Computer science is the *study of problem solving with computers*

- Astronomers don't study telescopes. They *use* telescopes to study the stars!
- Likewise, computer professionals *use* computers to solve important problems in the modern world
- Computer scientists also build computers and software that makes the computer run.

An important thread of this course is **computational thinking**, which is the way computer scientists think about and solve problems

Major Course Topics

Computational thinking and problem-solving

Basics of algorithms and data structures

Fundamentals of programming in the Python language

Data management, processing and analysis

Applications of computing in data science, natural language processing and artificial intelligence

Additional topics may be covered and this list may be modified based on interest and time

Textbooks

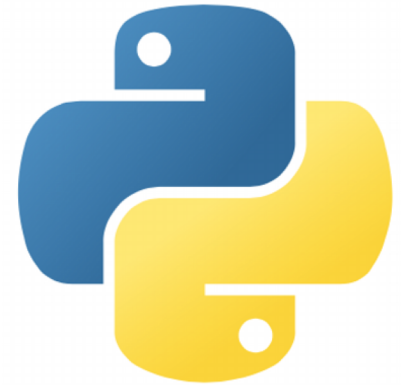
There is no textbook you need to purchase

Class readings are drawn from [How to Think Like a Computer Scientist](#) and other freely available online resources

Software

- Course is using Python with Google Colab (no download necessary)
- Optionally can also install Python on your computer:
 - Python 3
 - Visual Studio Code

We will use time in class to get familiar with Google Colab



Homework Assignments

- Over the course of the term you will be required to solve computational problems by writing software in Python
- These homework assignments will reinforce concepts from class and have you explore new concepts
- All work will be due on fixed dates and times
- All work will be completed on an individual basis (write your own code) unless otherwise instructed
- You will use **Google Drive** to submit your completed assignments

Please start early on the assignments! Most students find that completing the homework assignments for CSE 101 takes **a lot** longer than they anticipated

Late Homework Policy

Assignments must be turned in by the due date and time.

- Turning in any part of an assignment late means the entire assignment is late.
- If your assignment is incomplete or not entirely working by the due date, turn in what you have to get some partial credit.

If you have an emergency situation, email me before the due date and I may be able to work something out

Bottom line: Plan ahead, start early!

Lab

Lab exercises will involve a variety of programming tasks, such as:

- Writing your own, original, short programs to solve problems
- Running existing programs and collecting data about them
- Fixing errors in programs

Exams

The class has 2 exams and 1 final exam.

Exam dates are posted on the schedule page of the course website.

If in-person, all exams will be **closed-notes** and **closed-book**.

- Do not miss the exams
- Arrange your work and travel schedules to be present for the test
- Makeup exams will only be given for verified, officially sanctioned university activities. All makeup exams may be oral.

Grading

- **Assignments:** 33% [~11 assignments]
- **Labs:** 12% [~12 graded lab sessions]
- **Class Attendance/Participation:** 5%
- **Exams:** 30% (15% for each exam)
- **Comprehensive Final Exam:** 20%

Must receive **at least 50% on exams AND at least 50% on assignments** to get a grade higher than C-

Grade Cutoffs: A [93-100], A- [90-93), B+ [87-90), B [83-87), B- [80-83), C+ [77-80), C [73-77), C- [70-73), D+ [67-70), D [63-67), F [0-63).

- Grade cutoffs may be adjusted downwards if warranted by the grade distribution at the end of the semester

Participation

I expect everyone to attend class and have their video camera on (and pointed at them)

There will also be in-class questions and polls asked through Zoom

- These are not graded – as long as you submit an answer, you will get full participation credit

If you've responded to over 80% of the in-class questions and regularly attend, you will get full points for participation

- I will calculate the participation grade at the end of the semester based on the response and attendance logs

Re-Grading

To promote consistency of grading, questions and concerns about grading of labs or homework assignments should be addressed first to the graduate TA and then, if that does not resolve the issue, to the instructor.

You are welcome to contact the graduate TA by email or come to their office hours. If you would like to speak with the TA in person, and have a schedule conflict with their office hours, you are welcome to make an appointment to meet the TA at another time.

Questions on grading of the exams should be sent to the instructor directly.

For the labs, assignments, and exams, request for re-grading must be made within one week from after the announcement of grades.

My Prior Grade Distribution

Fall 2020

Final Grade	Number of Students
A	25
A-	8
B+	3
B	9
B-	5
C+	2
C	1
C-	0
F	9
Q	10

Spring 2021

Final Grade	Number of Students
A	17
A-	7
B+	3
B	5
B-	3
C+	0
C	2
C-	0
F	10
Q	10

Cooperation vs. Copying

Cooperation (talking over problems) is a good way to learn and is encouraged! But...

Do not copy code. Do not let others look at or copy your code.

Copying is not allowed on assignments or exams no matter the source (written or verbal).

- When you submit your homework or exams, **you are pledging that the work is your own and you have not copied it.**
- **You are also pledging that you have not allowed others to copy it.**

DO NOT COPY! (*Software tools catch cheating easily*)

Please ask me anytime if you have any questions on this

TA Assistance

TAs are available most days each week (Monday → Thursday)

- Schedule is forthcoming (will post on course website)
- TAs are available online via Zoom (links will be posted on website)

Come with specific questions and/or code with which you need help

- TAs try to spend time with everyone that comes to a session
- Be courteous and share the TA's attention

CampusWire

CampusWire is a website that you can post questions and get answers from TAs, the professor, and classmates

You will receive an invitation after class to join CampusWire

- Post any questions on the course material on the CampusWire website, so that everyone benefits from the answer
- If you have a personal issue, you can always email or talk to me directly

Do not post more than a few lines of code for a homework assignment or any solutions

- Please visit office hours for the instructor or TAs if you need more extensive help debugging your code

Disability

If you have a physical, psychological, medical or learning disability, please contact the Department of Student Affairs.

- Location: Academic Building A207
- Phone: 626-1190

They will determine with you what accommodations, if any, are necessary and appropriate

All information and documentation of disability is confidential

How to Succeed in this Class

Attend class and be on time!

- Not all information is in my lecture notes or in the book
- I do in-class demos that emphasize non-obvious details

This is an introductory course, but we're going to cover a lot of material and move quickly.

The assigned work will take a lot of your time, so practice good time management.

How to Succeed in this Class

Read the reading assignments, review the lecture notes, and try out example code

- Practice is the only way to become proficient at coding
- Very often your first, second, or third attempt at solving a problem will not be successful. It is **essential** that you give yourself enough time to try different ideas, taking breaks along the way!
- Those who write extra code for problems not assigned (“for fun”) generally do best in this class

Ask questions right away if confused. Ask in class, ask a TA, come to my office hours or send an email. Don't stay confused and don't get behind!

Introductions

We will take turns introducing ourselves

Everyone turn on their video

When I call upon you:

- Unmute yourself
- Say your name, major, and year

Next Steps

Review the course webpage:

<http://www3.cs.stonybrook.edu/~alexkuhn/cse101-fall2021>

Your first task:

- Please fill out the posted survey before next class (on course schedule)

Welcome and I hope you enjoy the class!