

2020 COMPUTER SCIENCE ONLINE SYLLABUS

COURSE OVERVIEW

The day will be divided into live lecture, practice exercises with your TAs and classmates, and office hours. We also have 4 HWs. You will typically have 3 days to do these HWs. The course will have some guest speakers who will expose you to different aspects of computer science.

Here are more details about each component, as well as requirements for the course

LIVE LECTURE

New content will be delivered via a live lecture every day

Mon, Wed, Fri – 9:00 AM – 10:30 AM EDT

Tue, Thu – 9:00 PM – 10:30 PM EDT

All lectures will be done via Zoom (or some equivalent software) and the recordings will be posted after the lecture. Lecture attendance will be part of the grade, but we will allow for 2 free absences to account for the fact that the difference in time zones does make it very challenging to attend every lecture.

EXERCISES

There will be a set of small exercises that accompany every lecture. These are going to be about 10 questions that are on the shorter side. Some students (those in western hemisphere time zones) will work on these exercises right after the live lecture. Other students will work on these exercises the next day morning, since we assume they would like to sleep after the lecture. Each student will work in groups with one or more TA mentoring/guiding them. This will be similar to the physical classroom wherein we have round tables with about 4 or 5 students and one TA. To guide you through the exercises, we will divide our TA staff into “morning” TAs and “evening” TAs depending upon their preferred schedules. The exercises part of the day is expected to take up a maximum of 2 hrs. Some exercises might take longer.

HOMEWORK

We will have 4 larger HWs. We will give you 3 days to solve each HW. For each HW you will be paired with one person who is in the same time zone as you.

OFFICE HOURS

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The instructor will have office hours using Zoom from **7:30 AM – 9:00 AM EDT** in the morning, and then also from **7:30 PM – 9:00 PM EDT** in the evening. While students can show up to any of the office hours, the two time slots are to ensure that we cater to different time zones.

The TAs as a team will hold 3 hours of office hours every day. Exact details about the times will be posted as we near the beginning of the course.

GUEST SPEAKERS

While we will not be able to do a visit to a software engineering company (a fun part of the ESAP experience), through Zoom we will be able to invite a number of guest speakers.

Our goal will be to have at least 2 guest speakers a week. Our guest speakers will include faculty members, graduates of the CS program who are working in the industry, and last but not least we will also have graduates of the ESAP program who are now students in the computer science program.

The guest speakers will do their talks at a time that is conducive to their work schedule. However, we will post recordings for all students.

HARDWARE & SOFTWARE REQUIREMENTS

Students are required to have their own computer with access to a microphone and a webcam. This is available on most modern laptops. The programming language will be Python, and the editor will be the Jupyter notebook framework – installation instructions will be provided during the first day of class.