

Welcome to the Spring'23 offering of CS6200 Graduate Intro to OS.

This is a graduate-level introductory course in operating systems. This course teaches the basic operating system abstractions, mechanisms, and their implementations. The core of the course focuses on OS support for concurrency (threads) and synchronization, resource management (CPU, memory, I/O), and distributed services. The practical component of the course teaches multi-thread programming, inter-process communication, and distributed interactions via RPC.

This course is part of the Online MS in CS degree courses. The online content for the class is available under Canvas -> Modules.

Please READ THIS at the start of the semester since some of the content mentioned in the Course Introduction video is out-of-date.

#canvas, piazza

Georgia Tech has transitioned away from T-Square, which was used in past offerings of this course, and now uses Canvas. Please access canvas.gatech.edu and make sure you can see the course. The course Piazza site will remain the official communication channel in the course, however, assignments and grades will be handled through Canvas.

#schedule

The update schedule is on Google Drive, linked in Canvas under the Syllabus tab:

<https://docs.google.com/spreadsheets/d/1KQas2M7fE4CoRpHRf4uyFhvxeL5cc04nUfvV8lzMmV0/edit?usp=sharing>

Although this is an Introductory course intended to supplement material that you should have mastered in undergrad, this is still an intensive course, with lectures, exams, and programming assignments.

#assessment

The class will have 3 programming assignments (Projects, worth 45% of the grade), a midterm (25%) and final (25%).

Projects: (45%)

The programming assignments are named Project1, Project3, and Project4.

All projects will be independent (note that I mention teams in the course intro, however, teams are not permitted). Projects 1 and 3 will be in C. We recently updated Project 4, in response to new developments in the Linux kernel, and it will be in C++.

You will be provided with instructions on how to set up a Linux-based environment for the course. **DO NOT** download the VM linked in the Udacity Course Resources pages. For each project, you will be provided with relevant source code and object files so you can perform all development and debugging tasks locally. You will also be given instructions on how to test your projects against the auto-grading frameworks that will be used by the TAs. To avoid delays in accessing this information, make sure your [github.gatech.edu](https://github.com/gatech) account is properly set up.

Tentative deadlines for the programming assignments are listed in the schedule. We will also suggest intermediate project "milestone" deadlines. These do not require an official submission, but you will be encouraged to follow the suggested schedule, both to avoid overloading yourselves prior to the actual deadline, and to make sure we can help you resolve the easier problems first.

Exams: (25% each)

The midterm and final exam are worth 25% of the semester grade, each. The time intervals for the midterm and final exam are also listed in the schedule. The exams will be proctored via Honorlock (the introductory lecture mentions ProctorU, which is no longer used in the program). After the first week of the semester, you will receive more information on Honorlock.

The midterm exam will cover material from Parts I and II from the video lectures. The final exam will cover material from Parts III and IV. The lecture schedule listed in the online schedule is a recommendation only. You are not being timed or otherwise assessed as to when you complete the lessons or the practice quizzes. You are not required to complete the Practice Quizzes in Canvas, they are there to help you or provide you with an opportunity to learn more.

Participation: (5%)

Additional 5% of the total grade are earned through Participation. This is based on your participation in the class online forums: mainly Piazza, but the TAs are maintaining a Slack channel that many of the students are finding very useful (<https://omscs6200.slack.com/>).

#ERRATA

Some of the videos still have some issues -- in some cases just typos, in other cases some more significant issues (e.g., math problem or error in image). These will be updated during the semester, but in the meantime, check for #ERRATA messages, particularly if something is not sufficiently clear.

There is a pinned ERRATA thread in Piazza, and please add any issues you discover to that thread.

#honor code

Please follow the Georgia Tech Honor Code:

<http://osi.gatech.edu/content/honor-code>

Note that this applies to software too. Do not use content (including software) found online without permission, or without proper credit. We provide you with additional information on Collaboration vs. Cheating, and will ask you to acknowledge that you have read and understood the class policy, as part of your participation credit.

You may NOT use something like Artificial Intelligence to help write your solutions.

We also ask that you maintain your project repositories private.

#communication

We will hold weekly office hours via Zoom. These are tentatively scheduled for Mondays 1pm EST, starting with the second week of the semester. The exact time and date will be confirmed with a Piazza post -- look for pinned threads with an #office_hours tag. Post questions prior to or during the office hours as comments to the corresponding Piazza post. The recording of the office hours sessions will be available afterward, so no need to watch live.

All course announcements will be made via Piazza and pinned at the top of the Piazza message feed. We are posting this message as an Announcement via Canvas, however, you are expected to check Piazza regularly. If you are reading this via email, and have not yet enrolled in the course Piazza section -- go to Canvas and do so as early as possible.

Please ask questions of general interest to the class as public Piazza posts. Questions that are sent as private Piazza posts may be converted to public posts if we determine they are relevant to the class. For any sensitive communication, you may use private Piazza posts, ideally visible to Instructors (to me and to all of the TAs), to make sure your question receives timely attention.

#havefun

We look forward to interacting with you over the next few months, and hope you'll enjoy the class!

Good luck,

Ada & TAs