Syllabus and Essential Information About This Class

1   About This Document

You are expected to read this document entirely and know its contents. It contains important information about when and how this class meets, how it is graded, what is expected of each student, how to get help, what to read and when to read it, and so on. It contains the dates of exams and other dates of importance for the Spring 2022 semester. The content of this document is considered to be course content and therefore may appear on an exam.

2   Course Format

This is an online course. It will meet at the scheduled class time **online**, using the **Zoom** web conferencing application. Students will need to install the Zoom client application to attend the class. Instructions and details regarding Zoom and attending class are in Section 3 below.

3   Class Meetings and Zoom

- **Meeting Time**. Class meets every Monday and Thursday, from 9:45 - 11:00 A.M., except for those days for which no classes are scheduled college-wide. Section 12 lists the days on which there are no classes.

- **Meeting Place**. The URL of the class meeting is https://us02web.zoom.us/j/85179952436. It is password-protected, and only students who are registered for this class will be allowed to attend. The password will be available on **Blackboard**.

- **Installing Zoom**. If you do not have the Zoom client, you can download it from the Zoom website https://zoom.us/. The **Resources** menu has a link to download clients for all operating systems. You can also install a plug-in to use Zoom within the Firefox and Chrome browsers, but it is better to install the client. When you install it, you will create an account with Zoom.

- **Zoom Display Name.** In each class session, you are required to be signed into Zoom with the name that you used to register for this class, henceforth called the **roster name** here. Specifically, you must set your **display name** in your Zoom profile so that it is the same as your roster name.

  - To set the display name in Zoom, go to the **Zoom Settings** in the client application, find the **Profile** tab, and click the **Edit Profile** button. In the web page that opens, click on the Profile link and then find the Display Name box. Enter the same name there as you used to register for this class.

  - If you have a very long name and/or a middle initial in the roster name and you would prefer not to use it, you may instead enter just your first name and your full last name. If either of your first or last names is more than one word and you prefer not to use the full name, you must notify me **before the start of the first class**, so that I can modify your name in the roster.

  - The purpose of this requirement is twofold: (1) to reduce the risk that someone who does not belong in class is in the session maliciously, and (2) so that in polls and other in-class activities, your participation can be recorded correctly.

- **Audio and Video**. *You are not **required** to turn on a camera for this class nor to turn on audio. The chat window may be used for asking and answering questions.* **Nonetheless, you are encouraged to use your microphone to ask questions.**

- **Legal Notice Regarding Video Recordings.** Students who participate in this class with their camera on or use a profile image are agreeing implicitly to have their video or image recorded solely for the purpose of creating a record for students enrolled in the class to refer to, including those enrolled students who are unable to attend live. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. Anyone who is not willing to consent to have their voice recorded during class, needs to keep the mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live.

4 Communication

Office Hours	Mondays, 12:00 - 14:00. Office hours are entirely online, through the *Zoom* web conferencing application. The URL for connecting is https://huntercollege.zoom.us/j/84614444770 and the passcode is 862474.
Email	stewart.weiss@hunter.cuny.edu
Telephone	(212) 772-5469. I will not be in the office but I can retrieve messages remotely.

Regarding email, please note that

- I will not read email containing *Microsoft Word*-encoded documents. If you need to attach a document, it must be either plain text or PDF.

- I will not read email unless it is sent from your "`myhunter`" account. It is a violation of federal law (**FERPA**) to have an email conversation about school-related matters using a non-school account because there is no proof that it is not spoofed and might be insecure[1].

You can see me during my office hours without an appointment. If you need to see me at a different time, you need an appointment. The only way to make an appointment is to send me email, and it is best to include a few suggested times.

5 Resources and Technology

Required ***Textbook***	*Operating System Concepts, 10th Edition.* Abraham Silberschatz; Greg Gagne; Peter B. Galvin, Wiley, New York. e-book version: ISBN 9781119320913; paperback abridged edition: ISBN 978-1119456339.

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[1] Email sent from the *myhunter* account requires an authenticated login, it satisfies FERPA's written consent requirement. However because security measures for other email systems are not as strict, an email received from Gmail or other mail accounts, for example, would NOT satisfy FERPA requirements.

Computer Science Department Linux Network	Registered students are given user accounts on the *Computer Science Department's* network of instructional computers. All hosts run *Ubuntu 18.04*. Students must use the secure remote login program, *ssh* , to access these accounts. See Section 13 below for more details about how to connect. ***Students will be required to use this network for most activities, assignments, and exams.*** ***Students are expected to know basic Linux commands in this class.*** Those students whose computing device runs Windows 10 or later can install a subsystem on their devices that allows them to run Linux commands. Instructions for doing this are available here: https://okunhardt.github.io/documents/Installing_WSL.pdf
Course Website	All course materials, including lecture notes, slides, assignments, syllabus, and other resources, including this document, are posted on the course website, at http://www.compsci.hunter.cuny.edu/~sweiss/course_materials/csci340/csci340_spr22.php
Discussion Board	This class uses *Piazza* as a discussion board. The sign-up link is https://piazza.com/hunter.cuny/spring2022/csci340.The *Piazza* discussion pages are at https://piazza.com/class/kx81xa6wo0d2sf Please see the section below entitled "Course Materials, the Web, *Piazza*, and Blackboard" for the details.
Grading and Exams	All exams and quizzes will be administered through Gradescope. The entry code for this course is posted in ***Blackboard***. Grades will be posted in the ***Blackboard Grade Center***.
Tutoring and Assistance	The course has undergraduate teaching assistants who are available to help you during their scheduled, virtual office hours. Their virtual office hours will be held through the ***Blackboard Collaborate Ultra*** web conferencing application. The tutoring schedule is on the ***Google*** calendar https://calendar.google.com/

5.1   About the Lecture Slides

The slides that I have written for this course use a form of ***Markdown*** language based on an open source Javascript tool named ***Remark***. If you try to download them as HTML and view them in your browser locally they will not format properly. To create a local copy of them, you can create a PDF version of the slides by opening them using the Google Chrome browser. In the browser, right click any page, select "Print" and then select the "Print to PDF" option. They will render very closely to what you see in the browser. Remark has a repository in GitHub (https://github.com/gnab/remark) and it can be downloaded from there, in case you want to install it on your own computer.

6   Prerequisites

You are required to complete CSci 235, CSci 260, Math 155, and either Stat 113 or Stat 213 with a grade of C or better to take this course.

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7   Departmental Learning Goals

Material in this course supports the following departmental learning goals: 1b: (understanding the relationship between computer architecture and software systems) by discussing virtual memory, hardware support for various OS tasks, and interrupt handling; 3a: (ability to communicate ideas effectively) by requiring homework that is graded in part on clarity and proper use of the English language; 3c: (ability to perform competitively on the Computer Science GRE) by exposing them to some of the material on that exam.

8   Course and Learning Objectives

The course is an introduction to the key concepts of operating systems. It begins with a thorough overview of background material, including basic concepts, hardware, and software, and continues with an examination of operating system services and interfaces, It also examines their structure and organization. After this it takes a look at various aspects of operating system design, including process management, synchronization and communication, and memory management. The focus of the course is not on the details of particular operating systems, but on concepts, features, and characteristics of operating systems in general. When concrete examples are needed to clarify concepts, these will be drawn primarily from *Unix* and *Unix*-derived operating systems such as *Linux*.

We will not cover all of the topics contained in the textbook, as it contains more than can be covered in a one semester undergraduate course. For a list of the actual topics that we will cover, as well as the readings and class schedule, see the accompanying document on this website: http://www.compsci.hunter.cuny.edu/~sweiss/course_materials/csci40/csci340_spr22_schedule.pdf.

9   Achieving Success in This Course

If you want to be successful in this course, learn the material, and earn a good grade, then you should do all of the following:

- ***Attend every class.***

- Read the assigned reading ***before*** the lecture, not after it.

- Post questions to the *Piazza* Discussion Board when you need help.

- Try to answer questions on the *Piazza* Discussion Board.

- Come to my office hours or those of the teaching assistants, to ask questions when you need help and all else has failed.

- Submit all assignments on time. ***They are worth zero if submitted late***.

- Start studying for exams many days before the exam.

- Do as many of the textbook's sample questions as you have time to do.

- Do your assignments yourself.

10   Assignments, Exams, Grading, and Lateness

The grade for the course is based on exams, assignments, and participation. There will be no programming projects in this class. There will be a few assignments, a few "pop" quizzes", one midterm, and a final exam. Only some of the assignments will count towards the grade in the class, and their total value towards the grade is 8%. Participation is 4% of the grade, and includes taking part in class activities and participating in class polls. If you are not in attendance, you cannot participate in these activities and your participation component will be reduced. Quizzes are 18% of the grade. The midterm and final exams are each 35% of the total grade and cover the first and second half of the course material respectively. Exams will be based upon the class lectures and the required readings. The table below defines the weights assigned to each component:

Component	Weight Towards Grade
participation	4%
assignments	8%
quizzes	18%
midterm exam	35%
final exam	35%

Letter grades are assigned based on the weighted average, using the college's standard grade ranges. I reserve the right to lower the cut-off points if I deem it necessary.

10.1   Participation

In order to receive credit for participating in an activity that is held in a Zoom class session, *the student's display name in Zoom must match the name that was used to register for the class*. "Matching" means that the first name and last name must be identical; it is not necessary to provide middle initials. Although attendance is not graded, you must attend a class to participate in any in-class activity, and so failing to attend will adversely affect the participation component of your grade.

10.2   Assignments

There will be up to five assignments whose weights toward the final grade will vary. Each assignment's weight will be given at the time it is assigned.

10.3   Exams

There will be one midterm and one final exam, and several short quizzes. Quizzes may not be announced in advance and will usually be based on material from a scheduled reading, a previous class, or an assignment. Each quiz will be from five to ten minutes long. The final exam will cover the material from after the last class covered by the midterm exam to the end of the semester. *Please note that the final exam is not cumulative.*

Exam	Exam Date
Midterm	March 24
Final	May 19, 11:30 - 13:30

10.4   Incomplete Grades

Assignments to be graded must be submitted by their due dates. **Assignments not submitted by their due dates will not be accepted and will be given a grade of zero**. Failure to take an exam or quiz counts as a zero grade on that exam. The only exception to these two rules is in the case that you have a

legitimate, documented medical or personal emergency that prevents your timely completion of homework or sitting for an exam and have notified me in a timely manner about this emergency. "Timely" means no later than one day after the missed deadline. I will schedule a make-up exam or grant a homework deadline extension only in that case. I do not give incomplete (INC) grades except to those students who were making progress through most of the semester and submitting assignments on time and who were unable to complete some work because of legitimate, documented medical or personal problems, and this is entirely at my discretion.

11   Class Schedule

The document at

http://www.compsci.hunter.cuny.edu/~sweiss/course_materials/csci340/csci340_spr22_schedule.pdf

contains the detailed class schedule.

12   Class Calendar and Important Dates

There are no classes on February 21, nor during Spring Recess, which is from April 15 through 22. The last day of class is Monday, May 16.

13   Programming and System Access

All students enrolled in the class are given accounts on the Computer Science Department's network. Under normal circumstances, this entitles you to *physical access* to the 1001B lab, which is equipped with Linux workstations. This lab is normally open from early morning through late evening. You may also use the 1001B Linux/Windows Lab if there is no class using it. The account also enables you to work from home or another remote computer by connecting to any of the lab machines remotely. The details are described below.

There are several rules regarding lab use, which are posted in the lab. Also, please read the documentation at

http://www.compsci.hunter.cuny.edu/~csdir/

for more information. Please take the time to read this page and the others referenced on it.

The Computer Science Department has a **gateway** machine named

    eniac.cs.hunter.cuny.edu,

available to students who have accounts on the network. `eniac` is a gateway computer - you will be able to login to this host from any computer that has *ssh* client software on the Internet. Once you login to `eniac`, you must login from `eniac` to one of the computers in the network that are named `cslab1`, `cslab2`, `cslab3`, and so on, up to `cslab30`. You cannot *ssh* directly to those machines from outside of Hunter College for security reasons. For example, you can first login to `eniac`, and then when it gives you a prompt such as "$", you would type

    ssh cslab5

and re-enter your network password at the prompt from `cslab5`.

Many computers come with a version of *ssh* already installed. If yours does not, you can get one for free. There are several free versions of *ssh*. *OpenSSH* is an open source version developed for the *OpenBSD* project. *PuTTY ssh* is a free version for the Windows operating systems. You can find more information about *ssh* as well as links to other free *ssh* clients at

https://www.ssh.com/ssh/ .

Macintosh computers come with a command-line *ssh* client.

14   Course Materials, the Web, Piazza, and Blackboard

All lecture notes will be posted on the course's home webpage (whose URL is above), which does not require special privileges to access. The only things for which I use Blackboard are for teaching assistant's office hours, and for posting of grades, which will be posted in the grade center there. This term we will be using Piazza for class discussion. The system is highly catered to getting you help fast and efficiently from classmates and me. Rather than emailing questions to me, you are to post your questions on Piazza. If you have any problems or need feedback for the developers, email *team@piazza.com*.

You can find our class's discussion page at:

https://piazza.com/class/kd80u1dhdg96u5.

An invitation to join the Piazza discussion board will be sent to your Hunter College email address close to the start of the semester. You should accept this invitation. Your Hunter email address can be used for reading and sending messages to the group, or you can change the email address or add another on the settings page by visiting the above page and making a request to join the group with any email address you choose. The discussion board can also be accessed at this URL:

https://piazza.com/hunter.cuny/fall2022/csci340

I require that you use the following protocol if you have a question:

1. Check whether the question you want to ask has been posted and answered on Piazza.

2. If it has been answered, you are finished. If not, post the question on Piazza.

3. Anyone in the class can answer the question. If no one else answers the question in a timely manner, I will post an answer to it.

I will ignore any non-personal questions sent to my Hunter email address. Personal questions (such as questions about a grade or a missed class or alternative times to meet with me) should be sent via private email to my Hunter email address, not to Piazza.

15   Academic Honesty

The *Oxford English Dictionary* states that "**plagiarism** is the act or practice of taking someone else's work, idea, etc., and passing it off as one's own; literary theft." If you pass someone else's work as your own you have committed **plagiarism**, which is an act of academic dishonesty. **Cheating** is the unauthorized use or attempted use of material, information, notes, study aids, devices or communication during an academic exercise. Both of these are examples of **academic dishonesty.**

Unless I state otherwise, all assignments and projects are to be your work alone. If someone else does part of this for you, it is considered to be academic dishonesty. Hunter College regards acts of academic dishonesty, such as plagiarism, cheating on examinations, obtaining unfair advantage, and falsification of records and official documents, as serious offenses against the values of intellectual honesty. The college is committed to enforcing the **CUNY Policy on Academic Integrity** and will pursue cases of academic dishonesty according to the **Hunter College Academic Integrity Procedures**. In this class, I will enforce the **University's Policy on Academic Integrity** and bring any violations that I discover to the attention of the Dean of Students Office.

15.1   Examples of Plagiarism

- Copying another person's actual words or images without the use of quotation marks and footnotes attributing the words to their source.

- Presenting another person's ideas or theories in your own words without acknowledging the source.

- Failing to acknowledge collaborators on homework and laboratory assignments.

- Internet plagiarism, including submitting downloaded source code, algorithms, research papers, paraphrasing or copying information from the internet without citing the source, or "cutting & pasting" from various sources without proper attribution.

15.2   Examples of Cheating

- Copying from another student during an examination or allowing another to copy your work.

- Unauthorized collaboration on an at-home assignment or examination.

- Using notes during a closed book examination.

- Taking an examination for another student, or asking or allowing another student to take an examination for you.

- Changing a graded exam and returning it for more credit.

- Allowing others to research and/or write assigned homework, including using commercial services.

- Facilitating someone else's acts of academic misconduct/ dishonesty.

- Fabricating or falsifying data (in whole or in part).

- Submitting someone else's work as your own.

- Unauthorized use during an examination of any electronic devises such as cell phones, computers or other technologies to retrieve or send information.

For further details, read the CUNY Policy on Academic Integrity.

16   ADA Compliance

In compliance with the ***American Disability Act of 1990*** (ADA) and with *Section 504* of the *Rehabilitation Act of 1973*, Hunter College is committed to ensuring educational parity and accommodations for all students with documented disabilities and/or medical conditions. It is recommended that all students with documented disabilities (emotional, medical, physical and/or learning) consult the ***Office of Access-ABILITY*** located in Room E1124 to secure necessary academic accommodations. For further information and assistance, the student can call (212-772-4857)/TTY (212-650- 3230).

17   Hunter College Policy on Sexual Misconduct

In compliance with the *CUNY Policy on Sexual Misconduct*, Hunter College reaffirms the prohibition of any sexual misconduct, which includes sexual violence, sexual harassment, and gender-based harassment retaliation against students, employees, or visitors, as well as certain intimate relationships. Students who have experienced any form of sexual violence on or off campus (including CUNY-sponsored trips and events) are entitled to the rights outlined in the *Bill of Rights for Hunter College*.

- Sexual Violence: Students are strongly encouraged to immediately report the incident by calling 911, contacting NYPD Special Victims Division Hotline (646-610-7272) or their local police precinct, or contacting the College's Public Safety Office (212-772-4444).

- All Other Forms of Sexual Misconduct: Students are also encouraged to contact the College's Title IX Campus Coordinator, Dean John Rose (jtrose@hunter.cuny.edu or 212-650-3262) or Colleen Barry (colleen.barry@hunter.cuny.edu or 212-772-4534) and seek complimentary services through the Counseling and Wellness Services Office, Hunter East 1123.

- CUNY Policy on Sexual Misconduct Link: http://www.cuny.edu/about/administration/offices/la/Policy-on-Sexual-Misconduct-12-1-14-with-links.pdf

18   Changes to This Syllabus

Except for changes that substantially affect the implementation of the grading statement, this syllabus is a guide for the course and is subject to change with advance notice. Any changes will be posted to the course website and to the Piazza group for the course.