



# Essentials: Communication, Content, and Structure

## 1 Course Format

In the Fall 2020 semester, *this course is an online course*. It will meet at the scheduled class time, but all meetings will be online, using the **Zoom** web conferencing application. Details regarding the online aspects are below.

## 2 Communication

**Class Meetings** Mondays and Thursdays, 8:10 - 9:25 Eastern Daylight Time (through Oct. 29 then Eastern Standard Time starting November 2). The URL of the class meeting on the Zoom website is <https://huntercollege.zoom.us/j/99489030157>. It is password-protected, and only registered students will be allowed to attend. The password will be available on **Blackboard**. **You are requested to sign in to Zoom in each class session with your real name for two reasons:** (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 breakout rooms I can see who is participating. **Participation is part of the grade.**

**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.**

**Recording of Classes** *Students who participate in this class with their camera on or use a profile image are agreeing 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. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live.*

**Office Hours** Prof. Weiss's office hours are entirely online, through the **Zoom** web conferencing application. The URL for connecting is <https://huntercollege.zoom.us/j/99661299063>.

**Office Hours** Thursdays, 13:00 - 15:00.

**Email** [stewart.weiss@hunter.cuny.edu](mailto: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. Note too that all email must be 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<sup>1</sup>.

You can see me during my virtual 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.

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### 3 Resources

#### **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.

#### **Computing Facilities**

Registered students are given user accounts on the *Computer Science Department* network of instructional computers. All hosts run *Ubuntu 18.04*. Students can use a secure remote login program such as *ssh* to access these accounts. See Section 11 below for more details about how to connect.

#### **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\\_fall20.php](http://www.compsci.hunter.cuny.edu/~sweiss/course_materials/csci340/csci340_fall20.php)

#### **Discussion Board**

This class uses *Piazza* as a discussion board. The *Piazza* course pages are at <https://piazza.com/class/kd80u1dhdg96u5>  
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 three undergraduate teaching assistants, who are available to help you during their scheduled, virtual office hours. Their virtual office hours will be through the *Blackboard Collaborate Ultra* web conferencing application. The tutoring schedule is on the *Google* calendar [https://calendar.google.com/calendar/embed?src=rnqvc2hvh12ilcsiefa0daj9bk%40group.calendar.google.com&ctz=America%2FNew\\_York](https://calendar.google.com/calendar/embed?src=rnqvc2hvh12ilcsiefa0daj9bk%40group.calendar.google.com&ctz=America%2FNew_York)

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<sup>1</sup> 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.



## 4 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.

## 5 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.

## 6 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, memory management, and, time permitting, I/O systems. 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\\_fall120\\_schedule.pdf](http://www.compsci.hunter.cuny.edu/~sweiss/course_materials/csci40/csci340_fall120_schedule.pdf).

## 7 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:

- 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.



## 8 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 attending class and participating in class polls. 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 |
|----------------------|----------------------|
| <i>assignments</i>   | 8%                   |
| <i>participation</i> | 4%                   |
| <i>quizzes</i>       | 18%                  |
| <i>midterm exam</i>  | 35%                  |
| <i>final exam</i>    | 35%                  |

There is a possibility that *proctoring software*, which may include the use of browser lock-downs and cameras, will be used for examinations in this course.

### 8.1 Exams

There will be one midterm exam, one final exam, and from three to six 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. These quizzes will be about 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 | October 22, 2020                                    |
| Final   | December 17, 9:00 - 11:00 AM, Eastern Standard Time |

### 8.2 Incomplete Grades

Assignments that are graded must be submitted by their due dates. **Late assignments will not be accepted and will be given a grade of zero.** Failure to take an exam counts as a zero grade on that exam. The only exceptions to these two rules are 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. I will schedule a make-up exam or grant a homework deadline extension only in that case. I do not give incomplete (IN) 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.

## 9 Class Schedule

The document at

[http://www.compsci.hunter.cuny.edu/~sweiss/course\\_materials/csci340/csci340\\_fall20\\_schedule.pdf](http://www.compsci.hunter.cuny.edu/~sweiss/course_materials/csci340/csci340_fall20_schedule.pdf)

contains the detailed class schedule.



## 10 Class Calendar and Important Dates

There are no classes on September 7, September 28, October 12, and November 26. Tuesday, September 8, and Wednesday, October 14, follow a Monday schedule, implying that we have class on those days. ***The last day to drop without a W is September 15. The last day to withdraw is November 5.*** The last day of class is Monday, December 7.

## 11 Programming and System Access

All students enrolled in the class are given accounts on the Computer Science Department's network. 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. I do not know at the time of this writing whether the labs will be open in Fall 2020.

If you are in the lab there are a few important rules that must be followed:

- Never power down a machine for any reason.
- Never leave a machine without logging out.
- Never use lockscreen to lock the screen in your login.

There are several other 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, available at

<http://www.chiark.greenend.org.uk/~sgtatham/putty/>.

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



## 12 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](mailto: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/fall2020/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 a 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.

## 13 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. 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.

## 14 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 Accessibility** 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).



## 15 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/1a/Policy-on-Sexual-Misconduct-12-1-14-with-links.pdf>

## 16 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.