CSci 340 Operating Systems
Essentials: Course Communications, Content, and Structure

Communications

Class Meetings: Monday, Thursday 11:10 A.M. - 12:25 P.M.,   C107
Office: HN 1090J
Office Hours: Tuesday 11:30 A.M. - 12:30 P.M., Thursday 12:45 - 1:45 P.M.
Email: stewart.weiss@hunter.cuny.edu
Telephone: (212) 772-5469 or (212) 772-5213 (department office)

Resources

Textbooks: Silbershatz, Galvin, & Gagne. *Operating System Concepts,* Eighth Edition, John Wiley & Sons, 2009. ISBN 978-0-470-12872-5.

Computing Facilities: Registered students will be given user accounts on the UNIX hosts in the 1000G lab of the Computer Science Department, located on the tenth floor of Hunter North. This lab is open 24 hours a day, 7 days a week and access to it is limited to students enrolled in selected courses. In addition, students will be able to use a secure remote login service such as *ssh* to access these accounts.

Website: All course materials, including lecture notes, slides, assignments, syllabi, and other resources, including this document, are posted on my website, at http://www.compsci.hunter.cuny.edu/~sweiss/course_materials/csci340/csci340_f09.php

Prerequisites

Enrolled students must have successfully completed CSci 235, CSci 260, Math 155, and either Stat 113 or Stat 213.

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.

Course Content

The course is an introduction to the structure and organization of operating systems. It begins with an overview of their structure and organization and then examines the various aspects of operating system design, including process management, synchronization and communication, memory management, protection and security, and file system design and structure. The focus of the course is not on 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 may be drawn from specific operating systems, with a great many from UNIX.

Expectations, Tests, Assignments, and Grading

The grade for the course is based entirely on exams and assignments. There will be no programming projects in this class. There will be five assignments, a midterm, and a final exam. The assignments are worth 30% of the total 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.

Exam Schedule

Exam	When
Midterm	Thursday, October 22
Final Exam	*Monday, Dec. 21, 11:30 AM - 1:30 PM*

Important Note: Note that the time of the final exam is *later* than the class time.

Scheduling

The last day to drop a class is September 17. The last day to withdraw is October 26.

Make a note of the following scheduling changes. There are *no classes* on September 7 and 28, October 12, and November 26 and 27. **Tuesday, September 29 and Wednesday, October 14 follow a Monday schedule, so we will have classes on those days.** The last day of this class is Thursday, December 10.

Course Materials, the Web, and Blackboard

As noted above, all lecture notes will be posted on my website, which, unlike *Blackboard*, does not require privilege to access. I rely on *Blackboard* only for communicating to all students, for posting grades and for the use of the *Discussion Board*, which is enabled so that students can have a free exchange of ideas. Therefore, you should check *Blackboard* before each class in case there are announcements.

I require that you use the following protocol if you have a question:
1. Check whether the question you want to ask has been asked and answered in the *Discussion Board*.
2. If it has been answered, you are finished. If not, post the question in the *Discussion Board* and ...
3. Send an email message to me asking me to look at the question on the *Discussion Board* and answer it there.
4. I will answer the question and send you an email message when I have answered it, so that you do not have to "poll" it waiting for an answer.

If you do not post your question, I will ignore it. I do this to save time for all of us.

Programming and System Access

Although there are no programming projects in the course, you will benefit from exploring the UNIX system in the 1000G lab, and you will be required to type your assignments. Therefore, you are given access to the department's computer network there.

The 1000G lab has workstations that run Red Hat Enterprise Linux 5, one version of UNIX. This lab is open "24/7" and has 24 workstations. You may choose to work *remotely*. The Computer Science Department has a UNIX host, *eniac.geo.hunter.cuny.edu*, available to students who have access to the lab. You will be able to access this host from any computer that has *ssh* client software. If you download the *ssh* client software to your home machine, you will be able to login from home.

There are several versions of *ssh*. *OpenSSH* is an open source version developed for the OpenBSD project. It is available for many operating systems. The OpenSSH home page is at

> http://www.openssh.com.

Alternatives for Windows are at http://www.openssh.com/windows.html and those for Mac are at http://www.openssh.com/macos.html.

PuTTY ssh is another free version for *Windows* operating systems, available at http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html.   My preference for Windows is the original SSH client, which is no longer supported. It can be downloaded from my website at http://www.compsci.hunter.cuny.edu/~sweiss/resources.php#Applications.

Academic Honesty

Hunter College regards acts of academic dishonesty (e.g., 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.