



Essentials: Communication, Content, and Structure

Communications

Class Meetings: Monday, Wednesday 17:35 - 18:50, Room C107
Office: HN1090J
Office Hours: Wednesday 15:00 - 16:00, 19:00 - 20:00.
Email: stewart.weiss@hunter.cuny.edu
Telephone: (212) 772-5469

Resources

Textbook: Andrew Krause, Foundations of GTK+ Development, Apress Publishers. 2007. ISBN-13: 978-1590597934.

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/csci493.70/csci493.70_fall111.php

Prerequisites

Enrolled students must have successfully completed CSci 235 and CSci 340.

Departmental Learning Goals

Material in this course supports the following departmental learning goals: 1d (partially): (having in-depth knowledge of at least two areas of specialization: e.g. databases, networking, computer theory, graphics, etc.) by learning how the interfaces to major operating systems work; 2c (being able to apply principles of design and analysis in creating substantial programs and have experience working in teams on projects of moderately realistic scope.) by requiring that a large practical project be completed with feedback from the rest of the class; 3a: (ability to communicate ideas effectively) by requiring homework that is graded in part on clarity and proper use of the English language, and also by requiring an oral presentation.

Course Objectives and Content

This course is about how to create programs that use windows and graphical user interface elements. You will learn about a free, public-domain, cross-platform library of graphical user interface tools that can be used



with UNIX and Windows operating systems alike, but it is primarily used for UNIX. The course will cover a bit of UNIX, software development in a command-line interface, including the use of make-files and other tools, concepts about window-based programs, events, signals, signal-handlers and callback functions, and GTK. You should be comfortable working in a UNIX environment if you plan to take this class. Elementary UNIX skills will not be covered.

About C and C++ in This Course

Most of the programming examples that I use and that appear in the textbook are written in C. Some students have a knee-jerk reaction when they hear this, thinking, "but I don't know C." This is not quite true. The C++ language contains most of the C language. If you know C++, you know a great deal of C. There are minor differences that arise in the syntax of declarations (such as struct and function declarations), but the real problem is that most students never learn how to use the C standard I/O library. Most students learn C++ stream I/O and never bother to learn the seemingly archaic functions of the C standard I/O library. These functions are at times much more useful than any found in C++. In general, you should use this opportunity to strengthen your C skills. While you are free to write C++ code, you will be required to read C code in this course.

Expectations, Tests, Assignments, and Grading

There will be several assigned programming projects as well as readings. You are expected to do all of the specified reading, complete all projects on time, and work independently. This is a seminar, not a regular lecture. As such, you are expected to be self-motivated and self-disciplined. Ninety percent of the final grade in the class will be based on the grades on the projects. The final project will require a 15 minute oral presentation to the class. Ten percent of the grade is based on class participation, which includes your being punctual.

Incomplete Grades

I do not give "incomplete" (IN) grades except to those students who have completed all work on time and who, for legitimate, documented medical or personal reasons, miss the final exam. I will not give an IN grade to someone who has fallen behind on the projects and does not hand the last project in on time.

Dates to Remember

The last day to drop a class without a "W" is September 16. The last day to withdraw with a "W" is November 17. There are no classes on September 5 and 28 nor on October 10. The last lecture will be on December 12. Presentations will take place on the day during which the final exam is scheduled, which is December 21, 17:20 - 19:20.

Programming and System Access

One choice is to use the 1000G lab, which is equipped with RedHat Linux workstations. This lab is open "24/7" and has 28 workstations. The advantage of this is that you will be sitting at the console of a Linux host and will not be subject to potential disconnections that can take place when working remotely. You will also be much less affected by network problems than if you connect remotely from outside of Hunter. The disadvantage is that you have to be in school to use it. When 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.

The other choice is to work remotely. The Computer Science Department makes a UNIX host, named `eniac.geo.hunter.cuny.edu`,

available to students who have accounts on the network. You will be able to access this host from any computer that has *ssh* client software. Once you login to `eniac`, you are requested to login from `eniac` to one of the machines in the 1000G lab, named `cs1lab1` through `cs1lab28`. You cannot *ssh* directly to those machines from outside of Hunter College for security reasons.

There are several 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.

Course Materials, the Web, Blackboard, and the CSci Network

All lecture notes will be posted on the course's home webpage, which does not require special privileges to access. Grades will be posted in the grade center on Blackboard. For the purpose of discussions and course-related questions, the class has a Google group with the following essentials:

Name: `hc_csci49370`
Home page: http://groups.google.com/group/hc_csci49370
Email address: `hc_csci49370@googlegroups.com`

If you do not have a Google email address, you will not be able to read archived questions or login to the group webpage, so I suggest that you obtain one on or before the start of classes. You can still post questions and receive email without a Google email address. The Google group will be the means by which to ask and answer questions related to the course. 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 in the Google group.
2. If it has been answered, you are finished. If not, send the question to the Google group.
3. Anyone in the group can answer the question. If no one else answers the question, 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 question about a grade or missing a class) should be sent via private email to my Hunter email address, not to the Google group.

All demo programs will be posted in the appropriate sub-directory of the directory

`/data/yoda/b/student.accounts/cs49370/demos/`.

All students registered in the class will have permissions to access these directories, which are accessible from any computer on the department side of the firewall, such as the *Lab 1000G* computers. All assignments must be submitted to the appropriate subdirectory of

`/data/yoda/b/student.accounts/cs49370/projects`.



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.