University of Wyoming
College of Engineering & Applied Science
Department of Computer Science

Computer Science 3750 - Linux Programming for Systems Applications.

SYLLABUS

Semester	Spring 2023
Meeting	•Time: T-R 08:10 - 09:25 AM
	•Place: EN 4059
Instructor	Dr. Kim Buckner
Office	EN 4089
Office Hours	•Monday & Wednesday: 1100–1200
	•Tuesday & Thursday, 1300–1430
	•Other times are available by appointment
Contact	•Email: kbuckner@uwyo.edu
	•Office Phone: 307-766-5182

Course Description:

This course is intended to provide the necessary tools and skills to begin programming effectively on UNIX and Linux operating systems. The course topics will include, shells and basic shell scripting, Linux utilities, editors, compilation, I/O and the file system, sockets and interprocess communication, and time permitting, threads.

Prerequisites: COSC 3020 or consent of instructor.

Objectives: Students who complete this course should be able to:

- Utilize standard text editors such as *vim*, *gedit*, *kate*, or *nedit*.
- Utilize some basic shell syntax including pipes and I/O redirection.
- Compile programs from the command line using standard compilers (*gcc*) controlled with *make*.
- Utilize *man* and *info*.
- Create processes that perform filesystem operations including directory traversal, file creation, and file access.
- Create processes that communicate via sockets.
- Create processes that use threads.

Required Text: None. The primary source of information will be the system's installed "man" and "info" pages. The most current documentation for the tools such as *gcc* will be on-line.

Recommended Text: "Advanced Programming in the UNIX Environment", 3rd ed., W Richard Stevens and Stephen A. Rago, Addison-Wesley, ISBN 978-032-163773-4

Course Policies:

- Grading:
    - A 90% - 100%
    - B 80% - 89%
    - C 70% - 79%
    - D 60% - 69%
    - F Below 60%

- Percent of Grade:
    - Exams: 30%
    - Programming/homework assignments: 70%

Homework and programming: Each assignment will have a due date and time assigned. Any late assignment will be assessed a 10% (ten percent) late penalty. Assignments can be no more that 24 hours late. After that a late assignment will be given a 0 (zero) grade.

Assignments will be made in class and posted/managed on WyoCourses. The method of submitting assignments will be specified when assigned. Failure to comply with the assigned submission method will result in a 0 (zero) grade for the assignment.

Academic Honesty: See "Classroom Climate & Conduct" link on course pages

Collaboration and discussion are acceptable and encouraged, but students MUST do their own work. The grade awarded must represent the individual's effort and achievement not that of others. Anything else is unfair to all students.

Attendance: Attendance at the lecture is highly recommended as not all material will necessarily be available from texts, notes, or the Internet. (see further UW Regulation 2-108)

Students with disabilities: See "Learning Tools" link on course pages.

Other Information:

- The use of cell phones (text as well as audio) and personal audio/video devices is prohibited in class. Ear buds/headphones must be removed from ears. Any devices that generate alert signals (ring, beep, etc.) must be turned off or set to "silent".

- WyoCourses will be an integral part of the class. This will give full access to course information including the most current version of this syllabus, homework assignments, projects, and a gradebook.

- Office hours are kept for the benefit of the students. They are intended to be set times when the instructor is known to be available in his office to answer questions, discuss course material and provide help. If I will not be available for office hours, you will be notified as much in advance as possible. There are times when this may be a sticky note on my door. I am normally here at the University from 0800 to 1430 Monday through Friday. I do have other classes. If you wish to come by outside of scheduled hours, please feel free. I will not guarantee that I can talk to you but we can make arrangements for some other time when I am available. You can also phone or email.

This Syllabus: This document is subject to error and change. Any changes will be communicated to the students in a timely manner. Any substantive changes will be communicated via WyoCourses per UW Regulation 2-117. No changes involving grading will affect assignments already given at the time of the change. No changes in assignment due dates will affect current assignments if such change causes the assignment to be due earlier than originally indicated.

Last Update: January 17, 2023