Introduction to Unix Systems Administration
(From a Computer Engineering Viewpoint)

Objective Skilled and savvy administrator who can write portable POSIX compliant software and understands Linux server operation and operating system concepts in a networked environment using a Raspberry Pi. Linux server operation includes shell usage, filesystems, networking, programming, scripting, and client/server model. Operating system topics such as concurrency, scheduling, memory management, device management, and security are covered through writing a kernel driver. Homework will emphasize coding and good coding practices.

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Office Hours Most any time when the door is open.

Credits 3

Grading

Homework/Quizzes	20%	Homework due every Thursday before the start of class
Projects I & II	20%	Due April 20 (I) & May 2 (II)
Exam 1	20%	Given March 2 in class
Exam 2	20%	Given April 27 in class
Final	20%	May 12

No make up for quizzes/exams/final. Credit will be deducted for late homework and missed classes. Exams and final are typically open notes, books, and may be open computer.

After three absences, one point will be taken off your final grade for every absence - no excuses. This penalty will not be used, however, to reduce a grade below a "D-" (It won't cause you to fail when you would have otherwise passed).

Text Internet

Coding Requirements All code will be written using the Linux kernel coding style. See the course web site for details on this coding style.

Project Project I will involve writing a kernel driver to interface to a RPi add-on board. Data

will be sent to or received from the add-on board. Additionally, user space utilities and extensive testing. Project II will involve creating a data logging system with web server and SQL data.

This course has a tremendous amount of material to remember and many terms have very subtle differences in meaning but completely different results. Using Linux/UNIX as much as possible will help reinforce all the material in this course. No doubt that Linux/UNIX has a steep learning curve but it is a very powerful tool.

Academic Honesty Statement

Academic honesty is very important. It is dishonest to cheat on exams, to copy term papers, to submit papers written by another person, to fake experimental results, or to copy or reword parts of books or articles into your own papers without appropriately citing the source. Students committing or aiding in any of these violations may be given failing grades for an assignment or for an entire course, at the discretion of the instructor. In addition to any academic action taken by an instructor, these violations are also subject to action under the University of Maine Student Conduct Code. The maximum possible sanction under the student conduct code is dismissal from the University.

Students with disabilities statement:

If you have a disability for which you may be requesting an accommodation, please contact Disabilities Services, 121 East Annex, 581-2319, as early as possible in the term.

Course Schedule Disclaimer (Disruption Clause):

In the event of an extended disruption of normal classroom activities, the format for this course may be modified to enable its completion within its programmed time frame. In that event, you will be provided an addendum to the syllabus that will supersede this version.

Attendance

Students are expected to attend all classes and laboratories and to be prepared for class and laboratory. Tardiness is considered being absent.

Sexual Discrimination Reporting

The University of Maine is committed to making campus a safe place for students. Because of this commitment, if you tell a teacher about an experience of sexual assault, sexual harassment, stalking, relationship abuse (dating violence and domestic violence), sexual misconduct or any form of gender discrimination involving members of the campus, your

teacher is required to report this information to the campus Office of Sexual Assault & Violence Prevention or the Office of Equal Opportunity.

If you want to talk in confidence to someone about an experience of sexual discrimination, please contact these resources:

For confidential resources on campus: Counseling Center: 207-581-1392 or Cutler Health Center: at 207-581-4000.

For confidential resources off campus: Rape Response Services: 1-800-310-0000 or Spruce Run: 1-800-863-9909.

Other resources: The resources listed below can offer support but may have to report the incident to others who can help:

For support services on campus: Office of Sexual Assault & Violence Prevention: 207-581-1406, Office of Community Standards: 207-581-1409, University of Maine Police: 207-581-4040 or 911. Or see the OSAVP website for a complete list of services at http://www.umaine.edu/osavp/

Conduct

Electrical and Computer Engineering students must adhere to the University of Maine Conduct Code. Each student is expected to work independently on all exams, including take home exams. Students may neither give nor receive assistance on examinations. All written material, including homework, term papers, reports, etc., must be the student's original work. When producing reports, each student is expected to write independently and in their own words. The works of others may only be used with proper reference or acknowledgment. Failure to adhere to this policy can result in the receipt of a failing grade, suspension, or dismissal from the University. Group interaction is generally necessary for laboratory data gathering and is encouraged but not necessary for data analysis and calculations.