COMP 376
Advanced UNIX Programming
Fall 2011

Professor: Dr. Daniel J. Kaiser
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Office Hours:

Monday	11:30 – 1:20, 2:30 – 3:20
Tuesday	10:30 – 12:00
Wednesday	11:30 – 1:20, 2:30 – 3:20
Thursday	By Appointment
Friday	11:30 - 1:20

During these times I will try to always be in my office or nearby. You are also welcome any other time I'm in my office. Special appointments may be arranged as well.

Prerequisite: Comp 233: Computer Organization and Architecture or permission.

Texts:
Quigley, *UNIX Shells by Example*, 4th, Pearson, 2005.
Molay, *Understanding UNIX/LINUX Programming*, Pearson, 2003.
Deitel & Deitl, *C++ for Programmers*, Prentice-Hall, 2009.
Hahn, *Guide to Unix and Linux,* McGraw-Hill, 2009.

Objectives: This course is designed as a bridge between Comp 233 and Comp 377. We will explore the UNIX operating system, learn to program using the Bash shell, and write systems programs in C/C++.

Structure: The class will consist of lectures/discussions and group activities. The material presented in class will overlap that of the texts but will contain additions and variations.

We will have 1 exam during the course of the semester and a final programming project.

As homework, I will assign selected exercises from the texts and other sources. You will usually be given one or two assignments each week. You will usually have two to three class periods to complete these.

Due dates for the homework assignments will be announced when they are given. Assignments must be turned in at the beginning of class on the day due. A penalty of 15% per class period will be assessed on late assignments.

Attendance: While you are not graded directly on attendance, you are expected to attend each class. Your attendance has a strong indirect impact on your grade. Also, your attendance will be used to boost your grade as follows. The attendance portion of your grade will be the percentage of classes for which you are actively present. This percentage will replace 5% of the lowest of the other four components. If you must miss a class for any reason, you are responsible for any material covered in your absence. If you must miss an exam, you will need to contact me before the next class period to schedule a make-up.

Grades: Final grades will be based on the following percentages.

Midterm Exam	25 - 30 %
Final Project	15 - 20 %
Programming and Homework Assignments	45 - 50 %
Attendance & Participation	5 %

Academic Dishonesty:
Acts of dishonesty will be handled in accordance with SMSU's academic dishonesty policy as printed in your student handbook. While you are encouraged to collaborate when working on homework assignments, you should not share your finished work with someone else nor ask someone else to share theirs with you.

Tentative Schedule

Topic	Approximate Dates	Text References
I. UNIX Fundamentals & Intro to Shell Prog	8/22 – 9/2	Quigley, Ch 1 – 2
Labor Day – No Class	**9/5**	
III. UNIX Tools	9/7 – 9/30	Quigley, Ch 3 – 6
IV. Bash Shell	10/1 – 10/17	Quigley, Ch 13 – 14
Fall Break — No Class	**10/7**	
Exam 1	**10/19**	
V. Intro to C/C++	10/21 – 10/31	Deitel, Ch 1 – 8, 15, 19
VI. C++ Data Structures	11/2 – 11/14	Lippman, Ch. 9 – 14, 20
VII. Systems Programming	11/16 – 12/9	Molay, Ch 1 – 10
Course Wrap Up	**12/9**	

The material covered for each topic, the exact nature of the assignments and the pace of the course will depend on the interest and progress of the class members.