University of Maryland University College, Asian Division

CMIS 325 Unix and Shell Programming

TERM 4

April 1 - May 22, 2003

Tuesday/Thursday 1830-2130

Syllabus

INSTRUCTOR: BJ Gleason

Phone: 723-4300

E-Mail: bjgleas@aol.com

Website: http://www.thinairlabs.com

Office Hours: Before and After Class, by appointment.

TEXTBOOKS: Welsh, Matt: Running Linux, 4th ed. ISBN: 0596002726

Negus, Christopher: Red hat 7.2 Bible ISBN: 0764536303

PREREQUISITE: **CMIS 140, or permission of the instructor. Note: This course requires *extensive* knowledge of C/C++ programming. Do not take this course if you have never done any C/C++ programming.** It is also strongly recommended (by not required) that you take IFSM 310 before taking this class, since you will be installing the UNIX operating system. If you have any questions or concerns, contact the instructor before signing up for the class.

DESCRIPTION: A study of the features of the UNIX operating system. This course is intended to give students the knowledge of UNIX operating system and hands-on experience in the UNIX environment. Shell programming is presented and practiced to interrelate system components. Projects give practical experience with the system. Students will design, write, debug, and run shell scripts of moderate difficulty.

COMPUTER RESOURCES: Students will be expected to have e-mail and Internet access. Most of the homework assignments will require extensive use of these resources. It is highly recommended that the students have access to a system that they can install a version of Unix on.

MAILING LIST: **Students are required to sign up for the class mailing list before the first class meeting. This is your first graded assignment.** See the website for instructions.

OBJECTIVES: Upon successful completion of this course the student will:

- Understand the history, characteristics, features, structure and the general functions of UNIX
- Gain the working knowledge of the fundamental UNIX utilities
- Develop, read, and maintain UNIX Shell and C/C++ programs
- Install and manage a UNIX system

EVALUATION:

Exam 1, 2:	40%
Final Exam:	30%
Assignments:	10%
Quizzes:	10%
Participation:	10%

POLICIES, PROCEDURES AND GRADES: IAW with the University of Maryland, University Catalog, Asian Division, and the Student Handbook (current editions). These cover essential information such as attendance, grading, make-up work and plagiarism.

ATTENDANCE: Because much of the material in this class consists of in-class group problem solving activities, class attendance is essential. Students are expected to attend all scheduled classes. However, if a student must miss a class due to military obligations or other unavoidable circumstances, every effort must be made by the student to obtain class notes and other material discussed. Communication with the instructor is vital and the student should notify the instructor of any

anticipated absences. **There are NO makeups for missed assignments or examinations unless arrangements are made in advance. Attendance is taken only at the beginning of class.**

HOMEWORK: **All assignments must be turned in at the beginning of class on the due date.** In the event of bonafide duty-related absence on the due date, arrangements must be made with the instructor in advance. **Homework is not accepted late.**

PLAGIARISM POLICY: Plagiarism is defined: to steal or use the ideas or writings of another as one's own. This may be avoided in most instances by giving credit/recognition to the original author. The University of Maryland, Asian Division's standard plagiarism policy is: intentionally plagiarized papers, reports, or exams will receive an F or 0 (zero), whether copied whole or in part. Subsequent cases of plagiarism can result in failure in the course. Unintentional plagiarism - cases arising from student inexperience rather than deliberate deception can result in a lower grade on papers than they might otherwise deserve and in mandatory rewriting.

MISCELLANEOUS: Students will be required to use a computer and associated software to complete course assignments. Software unique to the course will be introduced in class. However, students will be expected to make a determined effort to learn to use course unique programs on their own.

HAND PHONES, BEEPERS: Are to be tuned off before class begins. Emergency personnel should set their devices to a setting that will not disturb the class.

OUTLINE - *Schedule is subject to change, however all subjects will be covered.*

Week	DISCUSSION TOPICS	Chapters
1	The UNIX Operating System, Getting Started	1, 2, 3
2	File Structure, The Shell, Installing Unix	4, 5
3	Graphical User Interfaces, System Configuration **Exam 1**	10, 11
4	Networking, The vi editor, emacs editor	14, 15 16, 9
5	Bourne Shell, C Shell, Korn Shell	12
6	Shell Programming **Exam 2**	12
7	Programming Tools/ System Administration	13, 6, 7
8	System Administration **Final Exam**	8

Prerequisite Quiz: ***Are you ready for this class?***

1. Write a C/C++ program to read in 2 numbers and print out their average
2. Write a function to accept two integers and return the largest
3. What MS/DOS command is used to partition a disk?
4. Where do you change a computer's setting so it boots from the CD-ROM?