PELLISSIPPI STATE TECHNICAL COMMUNITY COLLEGE
MASTER SYLLABUS

UNIX UTILITIES & SHELL PROGRAMMING
CSIT 2460 (formerly CST 2460)

Class Hours: 3.0 **Credit Hours: 4.0**

Laboratory Hours: 3.0 **Date Revised: Spring 03**

NOTE: This course is not designed for transfer credit.

Catalog Course Description:

A study of the UNIX operating system. Topics include use of UNIX utilities, electronic mail, and shell programming.

Entry Level Standards:

The entering student should have a familiarity with the MS-DOS operating system. The student is expected to have moderate programming abilities in a high-level language.

Prerequisites:

CSIT 1110 and one programming course

Textbook(s) and Other Course Materials:

Required:
Das; *Your Unix: The Ultimate Guide*; McGraw-Hill, 2001.
Recommended References:
Hahn, Harley; *A Student's Guide to UNIX*, 2nd Edition; McGraw-Hill, Inc.; 1996.
Anderson, Gail and Paul Anderson; *The UNIX C Shell Field Guide*; Prentice-Hall; 1986.

I. Week/Unit/Topic Basis:

Week	Topic
1	Getting started
2	Understanding the Unix command
3	General purpose utilities
4	The vi/vim editor
5	The file system, File attributes
6	The shell
7	Simple filters
8	The process
9	TCP/IP networking, email
10	Email, The Internet
11	The X window system

12	Shell programming
13	Advanced shell programming
14	Perl
15	Perl
16	Final Exam Period

II. Course Objectives*:

A. Use basic Unix commands and utilities. II, III, IV, VI, VII, VIII, IX, X, XII

B. Use redirection and piping. II, III, IV, VI, VIII, IX, X, XII

C. Produce and use simple user interfaces. I, III, IV, V, IX, XI, XII

D. Use an XWindows environment. II, III, IV, VI, VIII, IX

E. Use common Unix text editors. III, IV, VI, VIII, IX, XI

F. Write shell programs. III, IV, V, VI, IX, XI

*Roman numerals after course objectives reference goals of the CSIT program.

III. Instructional Processes*:

Students will:

1. Use professional tools to produce software components and documentation. *Technological Literacy Outcome, Transitional Strategy, Personal Development Outcome, Active Learning Strategy*

2. Create a well-documented shell application based on client input and specifications. *Communication Outcome, Problem Solving and Decision Making Outcome, Technological Literacy Outcome, Information Literacy Outcome, Personal Development Outcome, Transitional Strategy, Active Learning Strategy*

3. Create a CGI scripts based on client input and specifications. *Communication Outcome, Problem Solving and Decision Making Outcome, Technological Literacy Outcome, Information Literacy Outcome, Personal Development Outcome, Transitional Strategy, Active Learning Strategy*

4. Practice elements of the work ethic such as punctuality, professionalism, dependability, cooperation, and contribution. *Personal Development Outcome*

5. Use professionally accepted methods and materials in their approach to completion of applications. *Technological Literacy Outcome, Personal Development Outcome, Transitional Strategy, Active Learning Strategy*

*Strategies and outcomes listed after instructional processes reference Pellissippi State's goals for strengthening general education knowledge and skills, connecting coursework to experiences beyond the classroom, and encouraging students to take active and responsible roles in the educational process.

IV. Expectations for Student Performance*:

Upon successful completion of this course, the student should be able to:

1. Write shell scripts in C shell and/or Bourne shell. A, B, C, E

2. Use Unix commands to solve problems. A, B, C

3. Customize a Unix environment for a specific application. A, B, C, E

4. Produce formatted documents using Unix text processing tools. A, D, E

5. Apply the `tool box' concept to specific problems. A ,B, C, D

6. Be able to perform file management activities to their file system. A, B, D

7. Use vi and/or emacs and/or pico editor to create and edit files. A, D, E

8. Be familiar with the development of the Unix system. A ,B, D

9. Use Unix to interface with Internet users. A, C, D

*Letters after performance expectations reference the course objectives listed above.

V. Evaluation:

A. Testing Procedures:

At least 4 tests will be given. Tests may only be made up for excused absences. An excused absence is one that can be verified by supporting documentation. Failure to make a passing quiz average will result in a grade of F for the course.

B. Laboratory Expectations:

Laboratory Expectations: At least 5 lab projects will be assigned during the course of the semester. Failure to make a passing lab project average will result in a grade of F for the course.

C. Field Work:

N/A

D. Other Evaluation Methods:

N/A

E. Grading Scale:

93 – 100 A
88 – 92 B+
83 – 87 B
78 – 82 C+
73 – 77 C
65 – 72 D
Below 65 F

VI. Policies:

A. Attendance Policy:

Pellissippi State Technical Community College expects students to attend all scheduled instructional activities. As a minimum, students in all courses must be present for at least 75 percent of their scheduled class and laboratory meetings in order to receive credit for the course (*Pellissippi State Catalog*).

B. Academic Dishonesty:

Plagiarism, cheating and other forms of academic dishonesty are prohibited. A student guilty of academic misconduct, either directly or indirectly through participation or assistance, is immediately responsible to the instructor of the class. In addition to other possible disciplinary sanctions that may be imposed through the regular Pellissippi State procedures as a result of academic misconduct, the instructor has the authority to assign an F or a zero for the exercise or

examination or to assign an F in the course.

C. Other Policies:

In the event that you have an emergency beyond your control, you must notify the instructor as soon as possible.