PELLISSIPPI STATE TECHNICAL COMMUNITY COLLEGE
MASTER SYLLABUS

LINUX/UNIX SYSTEMS & ADMINISTRATION
CSIT 2461

Class Hours: 3.0
Laboratory Hours: 3.0
Credit Hours: 4.0
Revised: Spring 03

NOTE: This course is not designed for transfer credit.

Catalog Course Description:

A study of the Linux/Unix operating system and its related utilities. This course provides user, programmer, and administrator perspectives. Emphasis will be on the practical use and application of this operating system to today’s PC, Server, and large distributed system architecture.

Entry Level Standards:

College level reading and math skills; keyboarding skills of at least 20 wpm

Prerequisites:

None

Textbook(s) and Other Reference Materials Basic to the Course:

Required:

Recommended References:

I. Week/Unit/Topic Basis:

<table>
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<tr>
<th>Week</th>
<th>Topic</th>
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<tbody>
<tr>
<td>1</td>
<td>Unix Overview and History</td>
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<tr>
<td>2</td>
<td>Getting Started, Unix Shells, vi</td>
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<td>3</td>
<td>Mail, Files, Security</td>
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<td>4</td>
<td>File Processing and Sharing</td>
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<td>5</td>
<td>Redirection and Processes</td>
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<tr>
<td>6</td>
<td>Networking and Internetworking</td>
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II. Course Objectives*:

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

B. Understand concepts and capabilities of the Unix/Linux environments. III, IV, VII, XI

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

D. Setup and Use system environmentals. II, III, IV, VI, VIII, IX

E. Administer systems and use good administration techniques, logic, utilities and procedures . III, IV, VI, VIII, 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, Personal Development, Transitional Strategy, Active Learning

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

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

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

5. Use industry accepted practices to administer systems and environmentals in a stand-alone or clustered environment. Communication, Problem Solving and Decision 
   Making, Technological Literacy, Information Literacy, Personal Development,
Transitional Strategy, Active Learning

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

*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 scripts, use tools and solve system problems. A, B, C, D, E
2. Customize a Unix/Linux environment for a specific applications. A, B, C, E
3. Produce documents and working utilities using Unix/Linux tools. A, D, E
4. Apply knowledge and concepts to specific problems. A, B, C, D
5. Perform and administer system setup, procedures, file management and security activities. A, B, D, E
6. Use an editor, generate scripts, use utilities and Linux GUI tools. A, B, D, E
7. Be familiar with the development of the Unix/Linux system. A, B, D
8. Use Unix/Linux to interface with users and connected resources. A, C, D

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

V. Evaluation:

A. Testing Procedures:

Quizzes will be given during lab time for almost every chapter covered. Quizzes count 50% of the final grade. One quiz grade will be dropped. Quizzes 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:

Five to seven 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. Lab projects count 50% of the final grade.

C. Field Work:

N/A

D. Other Evaluation Methods:

Each student is expected to do his/her own work in this class. If a student is unable to complete an assignment on his/her own, it is the student's responsibility to get help from the instructor (before the assignment is due).
Plagiarism, cheating, and other forms of academic dishonesty are prohibited. Students guilty of academic misconduct, either directly or indirectly through participation or assistance, are immediately responsible to the instructor of the class. In addition to other possible disciplinary sanctions which 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.

In the event that a student has an emergency beyond his/her control, the student must notify the instructor in advance, if at all possible.

E. Grading Scale:

Grading Scale:

- 90 – 100 A
- 80 – 89 B
- 70 – 79 C
- 60 – 69 D
- 0 – 59 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. Individual instructors may have requirements that are more stringent.