PELLISSIPPI STATE TECHNICAL COMMUNITY COLLEGE  
MASTER SYLLABUS  

PERL PROGRAMMING  
CST 2665

Class Hours: 3.0  
Laboratory Hours: 3.0  
Credit Hours: 4.0  
Date Revised: Spring 02

Catalog Course Description:
A study of the Perl programming language including regular expressions, objects from the Perl library, file handling, and networking. Perl and its use in CGI scripts with HTML web pages is included.

Entry Level Standards:
The entering student should have a familiarity with the DOS and Windows operating systems and should be competent in at least one high-level programming language. The student must have a student VAX-ID and demonstrated knowledge of its use. An elementary knowledge of Unix would be very helpful.

Prerequisite:
CST 1540 or department approval

Textbook(s) and Other Reference Materials Basic to the Course:
Recommended References:  
www.perl.com

I. Week/Unit/Topic Basis:

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
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<tbody>
<tr>
<td>1</td>
<td>Introduction, UNIX, Perl Scripts</td>
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<td>2</td>
<td>Perl Scripts, Control Structures</td>
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<td>3</td>
<td>Arrays and Hashes</td>
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<td>4</td>
<td>Arrays and Hashes, more Control Structures</td>
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<td>5</td>
<td>Subroutines and Functions</td>
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<td>6</td>
<td>CGI Introduction</td>
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<td>7</td>
<td>Regular Expressions</td>
</tr>
<tr>
<td>8</td>
<td>String Manipulation</td>
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II. Course Objectives*:

A. Use the syntax of the Perl language. II III IV VI VII VIII IX XI XII

B. Use structured programming concepts developed in earlier courses. I III V VI VII IX X XI

C. Use search tools, inquiries, Email, FTP, TELNET and other available resources found on the Internet to locate, use, download, upload and communicate effectively. II III IV

D. Write programs that meet written requirements and pass tests based on these requirements. II III IV VII

E. Demonstrate individual and teamwork standards compliance to accomplish given tasks within timeframes established. I

F. Develop an environment which serves customer and market needs. V VII IX X XII

G. Write Perl programs to solve a wide variety of problems. II III IV VI VII VIII IX XI XII

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

III. Instructional Processes*:

Students will:

1. Produce Perl programs as standalone scripts and CGI scripts. Problem Solving and Decision Making Outcome, Technological Literacy Outcome, Information Literacy Outcome, Transitional Strategy

2. Produce a set of Web pages that include the use of Perl CGI scripts as part of a collaborative effort for sharing with other class members. Communication Outcome, Transitional Strategy, Active Learning Strategy, Technological Literacy Outcome

3. Use the Internet as a medium for obtaining documentation and instruction and for submitting assignments. Communication Outcome, Technological Literacy Outcome, Information Literacy Outcome, Transitional Strategy

4. Participate in a software development team. Communication Outcome, Problem Solving and Decision Making Outcome, Transitional Strategy, Active Learning Strategy

5. Use professional tools to produce software components and documentation. Technological
Literacy Outcome, Transitional Strategy, Personal Development Outcome

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

7. Participate in a peer review of term projects. Problem Solving and Decision Making Outcome, Communication Outcome, Transitional Strategy, Active Learning Strategy

8. Use professionally accepted methods and materials in completion of program development. Technological Literacy Outcome, Transitional Strategy, Active Learning Strategy, Personal Development Outcome

*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. Recognize Perl data types and operators. A, G
2. Use Perl program control structures. A, B, C
3. Use Perl development tools prevalent in the industry. A, B, C
4. Use graphic user interfaces to perform specific tasks. C, E, F
5. Find resources and information to perform specific tasks. C, D, E
6. Use Web pages and search tools effectively. D, E, F
7. Use communication tools effectively. D, E, F
8. Show effective operational use of available utilities, products, software and hardware. C, D, E
9. Produce documentation, evaluations, performance data, sources of information, results of tasks and tests in a timely, well-organized manner. C, D, E
10. Participate in a team which provides Perl/Web consulting services to a non-profit organization in the community. A, B, C, D, E, F, G

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

V. Evaluation:

A. Testing Procedures: 50% of grade

Quizzes will be given during lab time for every chapter covered including handouts on UNIX. 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: 50% of grade
Three to four projects will be assigned during the course of the semester. Failure to make a passing project average will result in a grade of F for the course. Projects count 50% of the final grade. The last project is a team project of web page(s) and include a class presentation.

C. Grading Scale:

90 - 100    A
80 - 89     B
70 - 79     C
60 - 69     D
0 - 59      F

VI. Policies:

A. Attendance Policy:

Attendance is required in both the lecture and lab session. 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.

B. Other Policies:

Students are expected to do their 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).

In the event of an emergency beyond the student’s control, the student must notify the instructor in advance, if at all possible.