PERL PROGRAMMING
CSIT 2665  (formerly CST 2665)

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

NOTE: This course is not designed for transfer credit.

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 are 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 general user account and demonstrated knowledge of its use. An elementary knowledge of Unix would be very helpful.

Prerequisite:

CSIT 1560 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>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction, UNIX, Perl Scripts</td>
</tr>
<tr>
<td>2</td>
<td>Perl Scripts, Control Structures</td>
</tr>
<tr>
<td>3</td>
<td>Arrays and Hashes</td>
</tr>
<tr>
<td>4</td>
<td>Arrays and Hashes, more Control Structures</td>
</tr>
<tr>
<td>5</td>
<td>Subroutines and Functions</td>
</tr>
<tr>
<td>6</td>
<td>CGI Introduction</td>
</tr>
<tr>
<td>7</td>
<td>Regular Expressions</td>
</tr>
<tr>
<td>8</td>
<td>String Manipulation</td>
</tr>
</tbody>
</table>
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/or teamwork standards compliance to accomplish given tasks within timeframes established. I

F. Develop an environment which serves customer and/or 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 CSIT 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, Personal Development Outcome, Transitional Strategy, Active Learning 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, Personal Development Outcome, Transitional Strategy, Active Learning Strategy,

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

4. Participate in a software development team. Communication Outcome, Problem Solving and Decision Making Outcome, Personal Development Outcome, Transitional Strategy, Active Learning Strategy
5. Use professional tools to produce software components and documentation. *Technological Literacy Outcome, Transitional Strategy, Personal Development Outcome, Active Learning Strategy*

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


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 arrays and hashes. A, B, C
4. Use Perl subroutines and functions. A, B, C
5. Use and write Perl development tools prevalent in the industry. A, B, C
6. Use regular expressions in Perl. A, B, C
7. Read from/write to files in Perl. A, B, C
8. Use Perl reference variables. A, B, C
9. Use graphic user interfaces to perform specific tasks. C, E, F
10. Find resources and information to perform specific tasks. C, D, E
11. Use Web pages and search tools effectively. D, E, F
12. Use communication tools effectively. D, E, F
13. Show effective operational use of available utilities, products, software and hardware. C, D, E
14. Produce documentation, evaluations, performance data, sources of information, results of tasks and tests in a timely, well-organized manner. C, D, E
15. Participate in a team that provides Perl/Web consulting services for an organization. A, B, C, D, E, F, G

*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 test average will result in a grade of F for the course.

B. Laboratory Expectations:

At least 3 graded project assignments 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. The last project is a team project of web page(s) and includes a class presentation.

C. Field Work:

N/A

D. Other Evaluation Methods:

None.

E. Grading Scale:

<table>
<thead>
<tr>
<th>Percentage Range</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>93 – 100</td>
<td>A</td>
</tr>
<tr>
<td>88 – 92</td>
<td>B+</td>
</tr>
<tr>
<td>83 – 87</td>
<td>B</td>
</tr>
<tr>
<td>78 – 82</td>
<td>C+</td>
</tr>
<tr>
<td>73 – 77</td>
<td>C</td>
</tr>
<tr>
<td>65 – 72</td>
<td>D</td>
</tr>
<tr>
<td>Below 65</td>
<td>F</td>
</tr>
</tbody>
</table>

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:

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