

PELLISSIPPI STATE TECHNICAL COMMUNITY COLLEGE  
MASTER SYLLABUS

**PERL PROGRAMMING**  
**CSIT 2665**

**Class Hours: 3.0**

**Credit Hours: 4.0**

**Laboratory Hours: 3.0**

**Revised: Spring 07**

NOTE: This course is not designed for transfer credit.

**Catalog Course Description:**

A study of the Perl programming language including regular expressions, objects from Perl library, file handling, and networking. Perl and its use in CGI scripts with HTML web pages are included. On Demand.

**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. CSIT students should have had one programming course and CIW students should have had CIW Foundations.

**Prerequisite:**

One programming course

**Textbook(s) and Other Course Materials:**

*Perl Fundamentals* published by ComputerPREP/ProsoftTraining.

*Fundamentals of CGI Using Perl* published by Computer Prep/ProsoftTraining.

Recommended References:

*Learning Perl*, Third Edition by Randal L. Schwartz, Tom Phoenix. O'Reilly and Associates.

**I. Week/Unit/Topic Basis:**

<b>Week</b>	<b>Topic</b>
1	Introduction, Flow Control
2	Flow Control, Regular Expressions
3	Regular expressions, Arrays
4	Hashes, Subroutines
5	Subroutines, Environment Variables
6	Packages, Object-Oriented Perl
7	Object-Oriented Perl; CGI Programming
8	CGI Programming
9	CGI Programming

10	File I/O
11	File I/O
12	Databases
13	Databases
14	Security; Debugging
15	Final Exam Period

## 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. *Mathematics Outcome, Technological Literacy Outcome, 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, Transitional Strategy, Mathematics Outcome, Technological Literacy Outcome, Active Learning Strategy*
3. Use the Internet as a medium for obtaining documentation and instruction and for submitting assignments. *Communication Outcome, Technological Literacy Outcome*
4. Participate in a software development team. *Transitional Strategy, Active Learning Strategy*
5. Use professional tools to produce software components and documentation. *Technological Literacy Outcome, Transitional Strategy*
6. Practice elements of the work ethic such as punctuality, professionalism, dependability, cooperation, and contribution. *Communication Outcome, Active Learning Strategy*
7. Participate in a peer review of term projects. *Communication Outcome, Active Learning Strategy*

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

\*Strategies and outcomes listed after instructional processes reference TBR'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:

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. [NOTE: No differentiation is noted for excused/unexcused absences. These will be treated as an absence.]

B. Academic Dishonesty:

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.

C. Accommodations for disabilities:

If you need accommodations because of a disability, if you have emergency medical information to share, or if you need special arrangements in case the building must be evacuated, please inform the instructor immediately. Please see the instructor privately after class or in his/her office. Students must present a current accommodation plan from a staff member in Services for Students with Disabilities (SSWD) in order to receive accommodations in this course. Services for Students with Disabilities may be contacted by going to Goins 127 or 131 or by phone: 694-6751(Voice/TTY) or 539-7153.

D. Other Policies:

Computer Usage Guidelines:

College-owned or -operated computing resources are provided for use by students of Pellissippi State. All students are responsible for the usage of Pellissippi State's computing resources in an effective, efficient, ethical and lawful manner.