ITT Technical Institute

IT216

PERL and CGI in Linux Environment

Onsite Course

SYLLABUS

Credit hours: 4

Contact/Instructional hours: 50 (30 Theory Hours, 20 Lab Hours)

Prerequisite(s) and/or Corequisite(s):

Prerequisites: IT116 Intermediate Programming, IT250 Linux Operating System

Course Description:

Students will apply programming skills to script and execute the development of a Web site using tools such as PERLTM and CGITM in a Linux environment.

STUDENT SYLLABUS

Instructor: _____
Office hours: _____
Class hours: _____

Major Instructional Areas

- Control Structures
- Arrays & Hashes
- Subroutines & Functions
- Introduction to CGI
- Regular Expressions
- String Manipulation
- File Processing
- DBI and MySQL

Course Objectives

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

1. Write and execute a simple PERL program.
2. Identify the scalar values that can be assigned to a variable.
3. Identify various types of operators in PERL.
4. Write code using various conditional constructs.
5. Write code using various iterative constructs
6. Identify the uses of lists and arrays.
7. Identify how to access and assign values to arrays.
8. Use hashes in a program.
9. Use built-in PERL functions.
10. Open a file in various modes available.
11. Create HTML forms to accept user information.
12. Identify the use of request methods, GET and POST, in a CGI script.
13. Write a simple CGI script.
14. Add data to a text file using a CGI script.
15. Connect, Search, Insert and Delete information in a MySQL database using DBI.

Student Textbook and Materials

Text:

Deitel, H. M., Deitel, P. J., Nieto, T. R., & Nieto, T. R. (2006). *PERL How to program* (Custom ed.). Boston, MA: Pearson Custom.

Course Outline

Unit	Topic (Lecture Period)	Chapters	Lab and Other Coverage
1	Introduction to Programming in PERL and Control Structures	2 & 3	Lab
2	Arrays and Hashes	4	Lab, Homework
3	Control Structures II, Subroutines and Functions	5 & 6	Lab, Homework
4	Introduction to CGI	7	Lab, Homework
5	Regular Expressions	8	Lab, Homework
6	String Manipulation	9	Lab, Homework
7	File Processing	10 & 11	Lab, Homework
8	Databases: SQL and PERL DBI Part I	15	Lab, Homework
9	Databases: SQL and PERL DBI Part II	15	Lab Homework
10	Cookies & Final Review	16	Lab, Homework
11	Review and Final Examination	The final examination will be based on the content covered in chapters 2 – 11 & 15.	

Evaluation Criteria and Grade Weights

Assignments	10%
Lab Assignments	30%
Quizzes	20%
Final exam	20%
Project	20%

Final grades will be calculated from the percentages earned in class as follows:

A	90 - 100%	4.0
B+	85 - 89%	3.5
B	80 - 84%	3.0
C+	75 - 79%	2.5
C	70 - 74%	2.0
D+	65 - 69%	1.5
D	60 - 64%	1.0
F	< 60%	0.0