



## Perl Advanced

**Overview:** Perl Advanced is designed to introduce intermediate programmers to general Perl programming practices and problem solving, as well as issues specific to CGI programming and Web application development.

**Prerequisites:** To ensure your success, we recommend you first take the *Perl/CGI: Introduction* course. Students will be expected to know Basic HTML Basic CGI concepts Basic Perl syntax.

**Course Length:** Three Days

### **Lesson 1: Literate Programming for Perl**

- Literate Programming
- Comments
- Code Formatting Conventions
- Naming Variables & Subroutines
- Documentation

### **Lesson 2: Using Perl Modules**

- CPAN: Comprehensive Perl Archive Network
- Using Perl Modules
- Objects & Methods
- Modules Managers
- Installing Modules Manually

### **Lesson 3: References & Nested Variables**

- Introduction to References
- Creating References
- Values for References

### **Lesson 4: Useful Perl Functions**

- Status Notification Functions
- Evaluation of Perl Code
- Linear Text Processing Functions
- Array Processing Functions
- Hashes
- Random Number Generation

### **Lesson 5: Advanced Command Structure Topics**

- Next & Last in Loops
- Establishing Default Input with \$\_  
Advanced Comparison Operations

### **Lesson 6: File & Directory Manipulation for Perl**

- File & Directory Manipulation Operators
- Perl File & Directory Functions
- Locking a File

**Lesson 7: Database Concepts**

Database Products  
Basic Database Concepts  
Perl Interface & Drivers  
Using SQL in Your Script  
Database Design  
Advanced SQL

**Lesson 8: Web Concepts**

CGI.pm  
Sessions & Cookies

**Lesson 9: E-Commerce**

Online Order Forms  
Shopping Basket  
Downloading Orders  
Realtime Credit Card Processing

**Lesson 10: Using Perl to Send E-mail**

Using a Mail Server from Perl  
Net:SMTP  
Automated E-mail Tasks

**Lesson 11: Using HTML Templates**

Simple HTML Templates  
HTML::Template

**Lesson 12: Creating Subroutines**

Strategies for Code Re-use  
Subroutines  
Scope  
Passing Parameters to Subroutines  
Returning Results from Subroutines  
Recursive Subroutines

**Lesson 13: Perl Libraries & Modules**

Perl Libraries  
Modules

**Lesson 14: Command Line Environment for Perl**

Standardizing Command-line Syntax  
Perl Flags

**Lesson 15: Debugging Code**

Getting Better Debugging Information  
Perl Debugger

**Lesson 16: Interacting with Outside Programs**

Invoking Operating System Commands  
Pipes

**Lesson 17: Platform Considerations**

Installing Perl  
Cross-platform Issues