Instructor Led Training
Course Catalog

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Table of Contents

UNIX / AIX / Solaris / HP-UX

Intro to UNIX (3 days)	4
UNIX Shell Programming (3 days)	4
Advanced UNIX Shell Programming (2 days)	5
Advanced C Programming in UNIX (5 days)	5
UNIX System Administration (4 days)	5
Advanced UNIX – sed and awk programming (3 days)	6

Linux

Intro to Linux (3 days)	7
Linux Bash Shell Programming (3 days)	7
Advanced Linux Bash Shell Programming (2 days)	8
Advanced C Programming in Linux (4 days)	8
Linux System Administration (4 days)	8
Advanced Linux – sed and awk programming (3 days)	9

Perl

Intro To Perl (4 days)	10
Advanced Perl – Perl Objects (4 days)	10
Perl / CGI for Web Development (3 days)	11

C++

Introduction to C++ (5 days)	12
C++ for C Programmers (5 days)	12
C++ with Visual Studio.Net (5 days)	12
Advanced C++ Programming (5 days)	13
Oracle Pro-C/C++ Programming (5 days)	13

.Net

Developing Apps Using Visual Basic.Net 2005 / 2008 (5 days)	14
Developing Apps Using C#.Net 2005 / 2008 (5 days)	14
Developing Apps Using C++.Net 2005 / 2008 (5 days)	15

Java

Intro to Java(5 days)	16
Java Server Pages (JSP) (5 days)	16

Table of Contents (continued)

PHP / MySQL

Intro to PHP - MySQL (5 days) 17
Introduction to MySQL (3 days) 17
MySQL for Programmers (3 Days) 17
MySQL for Administrators (3 Days) 18

TCL / Tk

Tcl Programming (3 days) 19
Tk Programming (2 days) 19

UNIX / AIX / Solaris / HP-UX

In all its forms, UNIX is now viewed as an elegant and efficient solution to the problems inherent in today's information systems' community. From DBMS hosting to web-hosting to communications to development, UNIX is now one of the favorite operating system platforms in the business and engineering world.

UNIX skills are now one of most sought after commodities in the IS industry. Whether the platform is AIX, HP-UX, Solaris, Linux, or a mix of them all, UNIX skills are becoming a prerequisite for success of the Information Systems professional.

Intro to UNIX (3 days)

Course Description: This class introduces users to the UNIX operating system. The class focuses on fundamental commands and constructs needed for day-to-day operation of UNIX machines. Students will attain the skills necessary to operate confidently and efficiently in a command line environment, monitor the system, edit files, and build fundamental shell scripts.

Audience: UNIX users and administrators

Prerequisites: Exposure to a command line computing environment

UNIX Shell Programming (3 days)

Course Description: This class extends the Intro to UNIX class into the world of shell scripting. One of the most powerful facilities of UNIX, shell script understanding and development is an absolute must for today's UNIX professional. The class begins by reviewing the concepts and available tools to be used within shell scripts. Next, the demystification of quoting rules, variable passing, and the environment will be covered. Finally, the class will move to heavy lab work, debugging techniques, testing, and finalizing shell scripts for public distribution.

Audience: UNIX Power Users and Administrators

Prerequisites: Intro To Unix or equivalent. Adeptness with a UNIX text editor.

UNIX / AIX / Solaris / HP-UX (continued)

Advanced UNIX Shell Programming (2 days)

Course Description: This class extends the Unix Shell Scripting class into the world of advanced UNIX system tools and programming. The class will focus on those tools that extend the UNIX shell to its limit. Advanced UNIX commands, constructs, advanced sed and awk, and extended shell facilities will be explored to their limit. Also, techniques, error and signal trapping, and extended shell expressions will be covered.

Audience: Unix Power Users and Programmers

Prerequisites: Shell programming capabilities

Advanced C Programming in UNIX (5 days)

Course Description: This course provides in-depth training for software developers on UNIX system programming facilities. Participants learn how to develop sophisticated multi-process applications using system calls and library routines.

Audience: C programmers in a UNIX environment

Prerequisites: C programming experience. UNIX exposure.

UNIX System Administration (4 days)

Course Description: This course will cover administration tasks in a UNIX environment. Class will be tailored to the particular variant of UNIX requested. Topics covered include System Administration tools, user management, shell scripting, disk and partition management, and problem solving.

Audience: System Administrators for HP-UX, AIX, Solaris

Prerequisites: Familiarity with UNIX

UNIX / AIX / Solaris / HP-UX (continued)

Advanced UNIX – sed and awk programming (3 days)

Course Description: This course will cover heavy use of sed's inherent programming features for fast, efficient text file manipulation. After gaining proficiency with sed's advanced capabilities, the course seamlessly transitions into awk, sed's big brother. A complete coverage of command line and awk script development will boost the Linux user to super-user capabilities.

Audience: UNIX users and programmers

Prerequisites: Experience with UNIX shell scripting

Linux

Linux. Its reputation as a geek and hacker's language is no more. Linux is now viewed as an elegant and efficient solution to the problems inherent in today's information systems' community. From DBMS hosting to web-hosting to communications to development, Linux is now one of the favorite operating system platforms in the business and engineering world.

Linux skills are now one of most sought after commodities in the IS industry. Whether the platform is RedHat, Fedora, SuSE, Debian, or a mix of them all, a firm knowledge of Linux is becoming a prerequisite for success of the Information Systems professional.

Intro to Linux (3 days)

Course Description: This class introduces users to the Linux operating system. The class focuses on fundamental commands and constructs needed for day-to-day operation of Linux machines. Students will attain the skills necessary to operate confidently and efficiently in a command line environment, monitor the system, edit files, and build fundamental shell scripts.

Audience: Linux users and administrators

Prerequisites: Exposure to a command line computing environment

Linux Bash Shell Programming (3 days)

Course Description: This class extends the Intro to Linux class into the world of Bash shell scripting. One of the most powerful facilities of Linux, shell script understanding and development is an absolute must for today's Linux professional. The class begins by reviewing the concepts and available tools to be used within shell scripts. Next, the demystification of quoting rules, variable passing, and the environment will be covered. Finally, the class will move to heavy lab work, debugging techniques, testing, and finalizing shell scripts for public distribution.

Audience: Linux Power Users and Administrators

Prerequisites: Intro To Linux or equivalent. Adeptness with a Linux text editor.

Linux (continued)

Advanced Linux Bash Shell Programming (2 days)

Course Description: This class extends the Linux Bash Shell Scripting class into the world of advanced Linux system tools and programming. The class will focus on those tools that extend the Linux shell to its limit. Advanced Linux commands, constructs, advanced sed and awk, and extended shell facilities will be explored to their limit. Also, techniques, error and signal trapping, and extended shell expressions will be covered.

Audience: Linux Power Users and Programmers

Prerequisites: Shell programming capabilities

Advanced C Programming in Linux (4 days)

Course Description: This course provides in-depth training for software developers on Linux system programming facilities. Participants learn how to develop sophisticated multi-process applications using system calls and library routines.

Audience: C programmers in a Linux environment

Prerequisites: C programming experience. Linux exposure.

Linux System Administration (4 days)

Course Description: This course will cover administration tasks in a Linux environment. Class will be tailored to the particular variant of Linux requested. Topics covered include System Administration tools, user management, shell scripting, disk and partition management, and problem solving.

Audience: System Administrators for Linux Systems.

Prerequisites: Familiarity with Linux

Linux (continued)

Advanced Linux – sed and awk programming (3 days)

Course Description: This course will cover heavy use of sed's inherent programming features for fast, efficient text file manipulation. After gaining proficiency with sed's advanced capabilities, the course seamlessly transitions into awk, sed's big brother. A complete coverage of command line and awk script development will boost the Linux user to super-user capabilities.

Audience: Linux users and programmers

Prerequisites: Experience with Linux shell scripting

Perl

Short for Practical Extraction and Report Language, Perl is a programming language developed by Larry Wall, especially designed for processing text. Because of its strong text processing abilities, Perl has become one of the most popular languages for writing CGI scripts. Perl is an interpretive language, which makes it easy to build and test simple programs.

Perl can run under most operating systems, but is most widely used under Unix. Classes can be taught in a Windows environment (for those with no experience with Unix) with the accumulated skills easily ported to Unix (or other operating systems.)

Intro to Perl (4 days)

Course Description: Perl has been described as C, awk, sed, and shell programming all wrapped into one language. In this intense, 4-day, hands-on programming course, you will learn how to take advantage of Perl's power through examples and extensive exercises. Arrays and hashes, I/O, regular expressions, subroutines, and complex data structures are covered in depth. The course also introduces object-oriented programming in Perl, as well as UNIX multi-tasking and Perl sockets programming.

Audience: Programmers and system administrators.

Prerequisites: Fundamentals of UNIX. Experience in a high-level programming language, such as C, C++, or Java, is strongly recommended.

Advanced Perl – Perl Objects (4 days)

Course Description: Perl has evolved from its beginnings as an eclectic scripting tool for UNIX administrators into one of the most popular, influential, and widely used computer languages in history. In this course, you will learn how to fully utilize the Perl programming language with emphasis on building and manipulating Perl objects.

Audience: Application programmers, system administrators, web-site authors, webmasters, and UNIX/NT power users.

Prerequisites: Perl Programming and Perl application development experience. Full comprehension of the extending and embedding material will require some C or C++ programming experience.

Perl (continued)

Perl /CGI for Web Development (3 days)

Course Description: This course bridges the gap between using HTML to create static Web pages and using Perl CGI scripts to create dynamic Web pages. The course emphasizes using the Perl 5 CGI library routines to process HTML forms by providing extensive working examples and by students writing applications to illustrate the concepts presented. This course is not intended to be a substitute for a Perl programming course.

Audience: Web site developers wanting to create interactive Web pages.

Prerequisites: Familiarity with HTML forms. Programming experience is required. Basic UNIX skills and the ability to use vi or a basic text editor are also required.

C++ Programming

Having become one of the premier object based programming languages today, C++ is now the standard development language of many of today's high-end technology firms. It encompasses the foundational syntax of the C language enhanced with new keywords and facilities for creating, manipulating, and destroying objects. This is a must language for all serious object programmers.

Introduction to C++ (5 days)

Course Description: This class introduces programmers to the C++ language. We will start with the syntax of the language and quickly move to data types, precedence and associativity rules, the fundamentals of decision and looping constructs, input/output, and, finally, the concept of the object creation and destruction. This class is platform neutral and can be taught under UNIX, Linux, and Windows with any ANSI C++ compliant compiler.

Audience: Programmers wanted to move from the structured world to the object world

Prerequisites: Exposure to any programming language (COBOL, Fortran, Pascal, etc.)

C++ for C Programmers (5 days)

Course Description: This class introduces C programmers to the C++ language. This course will do a quick review of the appropriate C concepts and quickly move to those concepts that are new with C++. We will cover the new data types, references, and all concepts of the object world, including inheritance, encapsulations, and polymorphism.

Audience: C Programmers wanting to move to the object world

Prerequisites: An understanding of the C Programming language

C++ with Visual Studio.Net (5 days)

Course Description: Similar to our Introduction to C++ class, this 5 day session introduces fundamental C++ concepts. However, this class takes fundamental skills and uses them in the Microsoft's .Net environment. In addition to standard C++ concepts, the students will write Windows based applications utilizing the Common Language Runtime (CLR) environment.

Audience: Programmers wanted to move from the structured world to the .Net environment

Prerequisites: Exposure to any programming language (COBOL, Fortran, Pascal, etc.)

C++ Programming (continued)

Advanced C++ Programming (5 days)

Course Description: Our advanced C++ course moves the student from a functional programming mode to an extended mode. We will revisit, to a higher level, all topics that make C++ the preferred language for object developers. Primarily, this class will explore the makeup and usage of the Standard Template Library's Container Classes, Functions Objects, Iterators, and Algorithms. This class is platform neutral.

Audience: C++ Programmers wanted to extend their capabilities and utilize the STL

Prerequisites: A C++ programming background

Oracle Pro-C/C++ Programming (5 days)

Course Description: Our Oracle Pro-C / C++ course is the perfect vehicle for programmers needing an interface into Oracle. The first half of the class focuses on the C++ language and its fundamental capabilities. The last half of the class is used for wrapping SQL statements inside C++ programs for database connection, record set generation, and data manipulation.

Audience: Programmers needing to interface with Oracle via a high-level, object based programming language.

Prerequisites: Fundamentals of SQL and experience with any high-level programming language.

.Net Development

The .NET Framework is a key Microsoft offering and is intended to be used to develop Windows applications with inherent cross-language interaction. Companies from around the world are now standardizing on the .Net Framework for both client and server side applications.

Developing Applications Using Visual Basic.Net 2005 / 2008 (5 days)

Course Description: This 5 day session introduces fundamental Visual Basic concepts. Students will develop forms based applications utilizing form and menu controls, access data using ADO.Net, embed exception handling routines, and utilize debugging features of the .Net environment.

Audience: Programmers wanted to move from the structured world to the .Net environment using Visual Basic

Prerequisites: Programmers wanted to move from the structured world to the .Net environment using Visual Basic

Developing Applications Using C#.Net 2005 / 2008 (5 days)

Course Description: This 5 day session introduces fundamental C# concepts. Students will develop forms based applications utilizing form and menu controls, access data using ADO.Net, embed exception handling routines, and utilize debugging features of the .Net environment.

Audience: Programmers wanted to move from the structured world to the .Net environment using C#

Prerequisites: Programmers wanted to move from the structured world to the .Net environment using C#

.Net Development (continued)

Developing Applications Using C++.Net 2005 / 2008 (5 days)

Course Description: Similar to our Introduction to C++ class, this 5 day session introduces fundamental C++ concepts. However, this class takes fundamental skills and uses them in the Microsoft's .Net environment. In addition to standard C++ concepts, the students will write Windows based applications utilizing the Common Language Runtime (CLR) environment.

Audience: Programmers wanted to move from the structured world to the .Net environment using C++

Prerequisites: Exposure to any programming language (COBOL, Fortran, Pascal, etc.)

Java

Java is the high-level programming language developed by Sun Microsystems. It is a robust, platform independent, object-oriented language similar to C++, but without many of the problematic areas of C++. Java is used heavily in all environments, including mainframe, UNIX, and the web.

Intro to Java(5 days)

Course Description: This course presents an overview of the Java programming language, including file I/O and threads. In order to build a solid foundation for Java development, an introduction to object-oriented programming is presented.

Audience: Programmers

Prerequisites: Exposure to any high-level programming language.

Java Server Pages (JSP) (5 days)

Course Description: This course presents Java web development using IBM's WebSphere Application Developer (WSAD). We will cover the basic framework of web development, the role of WSAD, Java Servlets, JavaServer Pages, Struts, and Enterprise JavaBeans.

Audience: Programmers

Prerequisites: Java knowledge

PHP – MySQL

Viewed as one of the most popular scripting languages for generating dynamic web content, PHP is one of the most sought after skills in the web development world. MySQL, the most popular open source database management system today, now rivals Informix and Oracle for its capabilities and power.

Intro to PHP - MySQL (5 days)

Course Description: Learn how to build database applications using the PHP Scripting language. The course will actually build web applications using both PHP and MySQL. Approximately half of this class is used to learn the PHP language, with the other half learning MySQL and building web applications.

Audience: UNIX Programmers and web developers.

Prerequisites: Fundamentals of UNIX. Experience in a high-level programming language, such as C, C++, or Perl, is strongly recommended. Light SQL knowledge is also a plus.

Introduction to MySQL (3 days)

Course Description: This course will give the MySQL user all the tools needed for working with and processing MySQL databases. From command line MySQL work, to automating reports, to building and modifying databases and tables this class has all the components necessary for you to become a MySQL expert.

Audience: UNIX users, developers, and prospective administrators.

Prerequisites: Fundamentals of UNIX. Light exposure to Perl or PHP is a plus.

MySQL for Programmers (3 Days)

Course Description: Learn how to interface the MySQL database with C, Perl, and PHP. Garner the power to create truly world-class, dynamic web applications using the languages so well suited for MySQL integration.

Audience: UNIX programmers.

Prerequisites: Fundamentals of UNIX. Working knowledge of MySQL. Perl, PHP, or C programming skills will be necessary.

PHP – MySQL (continued)

MySQL for Administrators (3 Days)

Course Description: Learn, in depth, the MySQL DBMS features and capabilities necessary for becoming a MySQL administrator. Focus will be on those tasks revolving around the administration of MySQL, including user management, security, and database maintenance.

Audience: UNIX users migrating to a MySQL administration role.

Prerequisites: Fundamentals of UNIX. Working knowledge of MySQL.

Tcl / Tk

Tcl (Tool command language) is becoming one of the more popular UNIX scripting languages. It is used primarily for controlling and extending applications and is embeddable.

Tk (Tool kit) is a Tcl extension for building X-Window applications, with built-in commands for building user interfaces.

Together, Tcl and Tk can be used to rapidly prototype and develop robust X-Windows applications.

Tcl Programming (3 days)

Course Description: Learn how to write scripts in the Tcl scripting language. In this class you will learn the prerequisite capabilities needed for creating Tk applications.

Audience: UNIX and Linux Programmers

Prerequisites: Fundamentals of UNIX / Linux

Tk Programming (2 days)

Course Description: Build on your Tcl knowledge to develop X-Windows applications.

Audience: UNIX and Linux Programmers

Prerequisites: Fundamentals of UNIX / Linux and Tcl programming fundamentals