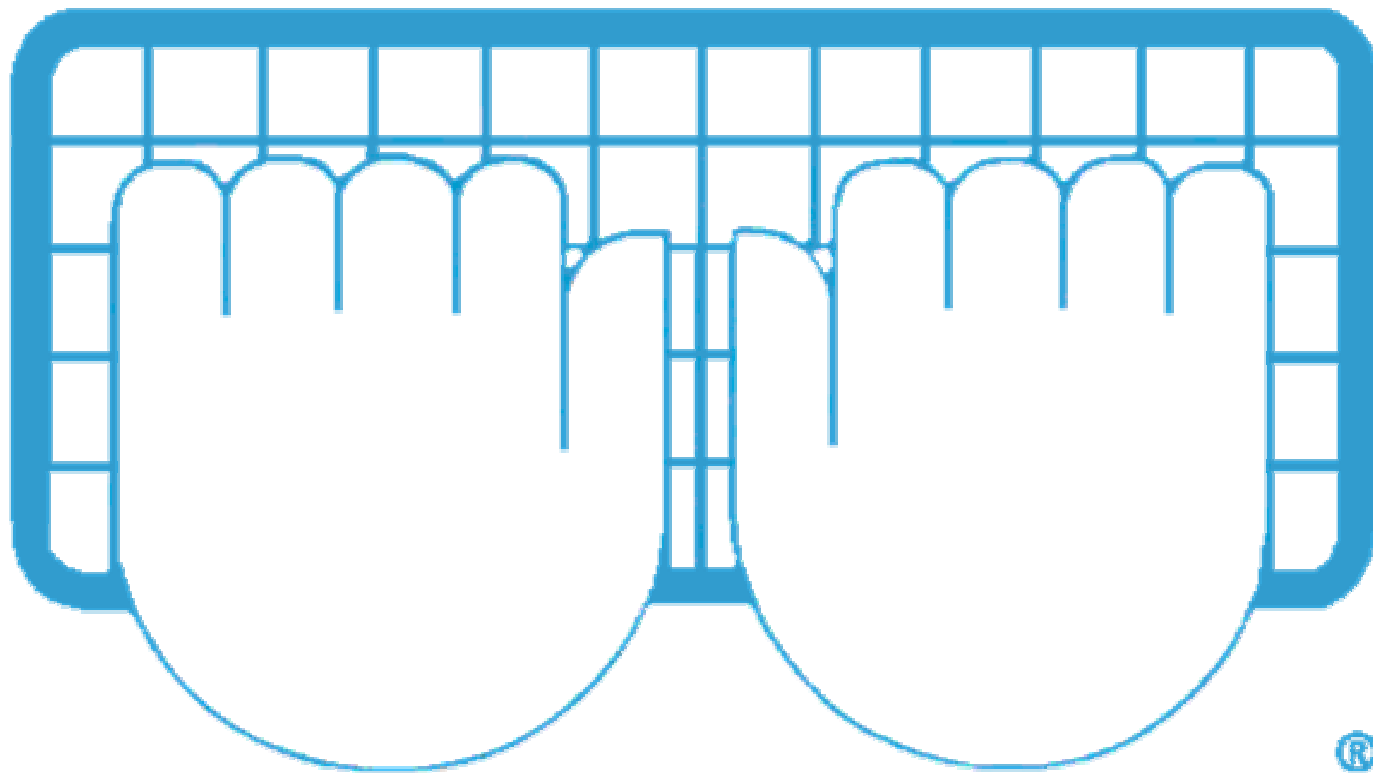


# Open Source Software Training Services

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# Freeware and Open Source Software

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- Organizational enterprise is being challenged to do more with less while providing flexible mobile data and systems and growing and improving the existing ones.
- Increasingly, freeware and open source software is being used to bring reduced cost to information technology infrastructure:
  - Web browsers
  - Operating systems
  - Web servers
  - Scripting languages
  - Middleware
  - Databases
  - Programming languages

# SYS-ED Experience with UNIX and Linux



- The principals at SYS-ED were among the original cadre of UNIX proponents and practitioners in the late 1970's and early 1980's.
- They developed and taught C programs to a generation of programmers, were involved with the superset of functions which became C++, and wrote hand-outs and instructor guides for X Windows and Motif interfaces.
- As UNIX and Linux have become integrated into IBM mainframe operating systems, SYS-ED system consultant instructors' developed and taught tailored network administration, coding, and utilities courses.
- More recently, SYS-ED has been providing educational consultancy with UNIX and Linux scripting in hybrid commercial and freeware open source software environments.

# SYS-ED Experience with the Java Language

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- In the 1990's SYS-ED and Computer Education Techniques Technology Partners were leaders in coding and debugging application programs with Sun Microsystems Java programming language which was available for download free of charge.
- Given SYS-ED's longstanding experience with IBM mainframe systems and Oracle Corporation database software, it was a natural progression to extend this expertise to the commercial utilization of the Java programming language.

# Open Source Software: Identifying Trends

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- SYS-ED staff and Computer Education Techniques Technology Partners review software distributed under the GPL: General Public License for open source software in relation to emerging trends in hybrid and increasingly interrelated information technology.
- This information is augmented by an examination of the information made available by international standards committees, purveyors of open source software, and software companies.
- It is used to update our open source software curriculum and develop lesson plans for new course offerings.
- Technology assessments and updates are distributed through SYS-ED categorized and software specific websites.

# Open Source Software: Strategic Implementation

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- Open source software has reached a level of maturity and acceptance, where it has become a standard practice as part of product evaluations to compare open source applications with commercial solutions.
- The strategic objective is to utilize open source software for improving the efficiency of IT infrastructure and innovating for competitive advantage.
- Governments in different parts of the world are imposing regulations in accordance with their national agenda in order to ensure that there is competition in the market and an open source alternative to the major commercial software products.

# Open Source Software: Utilization in the Market

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- Open source software has thrived and played a prominent role in the building of the Internet's infrastructure.
- Many companies rely on Linux-based computers and Apache web server software to display their web pages.
- The Mozilla Firefox web browser has emerged as the most formidable competitor to Microsoft Internet Explorer.
- Open source projects have also been used by dominant information technology companies to shape markets in their own best interest.
  - IBM has been a major backer of Linux, helping to raise it as a competitor to Microsoft Windows and other commercial operating systems.

# Open Source Software: Industry Standard Courses

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- In order to address the changes in the featureset and utilization of freeware and open source software, SYS-ED's industry standard Linux, UNIX, Solaris, Java, and XML curriculum and training programs have been updated.
- New and tailored courses also have been added.
- Typing keywords in the [SYS-ED course search engine](#) will provide:
  - Industry standard course titles and the associated major topics.
  - Consultancy derived tailored courses with client specified subject matter.

# Open Source Software: Commercial Utilization - 1

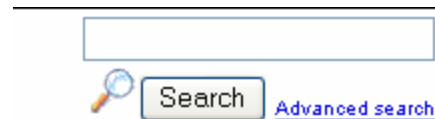


- With the integration of UNIX, Linux, and Java by IBM Corporation and Oracle Corporation into its commercial software product lines, SYS-ED developed new curriculum and training programs to address the utilization of freeware and open source software in hybrid information technology.
  - IBM VisualAge, WebSphere MQ, WebSphere Application Server, WSAD, and Rational.
  - Oracle Application Server, JDeveloper, WebLogic Server, and WebLogic platforms.
- Tailored learning paths and educational consultancy were developed in order to address issues in migrating from Microsoft Visual Basic to 1- Java and 2- MS C#.

# Open Source Software: Commercial Utilization - 2



- Three SYS-ED websites provide technology updates and assessments on freeware and open source software and their implementation by the major software companies:
  - Oracletrainingbysysed.us
  - Weblogictrainingbysysed.us
  - Webspheretrainingbysysed.us
- Submitting “Oracle”, “WebLogic”, or “WebSphere” in the course search engine will provide the SYS-ED course offerings for the commercial utilization of the Java programming language.



# Open Source Software: Emerging Markets

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- SYS-ED is monitoring and evaluating the major trends in freeware and open source software.
  - Smartphones and Mobile Devices
    - This nascent market is an area where freeware and open source software is being used extensively.
  - Web Centric Computing
    - This trend has not fully developed yet.
    - It is unclear as to what the acceptance and role of the Google Chrome operating system will be.
    - There appear to be two distinct markets emerging: 1- Consumer and 2- Enterprise.

# Smartphones and Mobile Devices

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- There is an immense global demand emerging for smartphones and mobile devices based upon Google's adaptation of open source Linux into its freeware Android operating system.
- The development platforms used by Apple in its immensely popular iPad and iPhone devices also are based upon open source programming languages: Java and C.
- SYS-ED staff have been downloading the software and SDKs and developing prototype applications.
- We are researching design tradeoffs and testing code; as problems are resolved, this information is being incorporated into the CETi knowledge base, courseware, and training aids.

# Web Centric Computing and Web Browsers

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- A shift in the development paradigm is currently underway with respect to web centric computing.
- Some technologists argue that the Internet will be the platform for most applications, with the web browser as the access method.
- There has been a significant increase in the downloading of open source freeware web browsers: Mozilla FireFox, Google Chrome, and Opera.
  - Concurrently, the market share of the major commercial web browsers has declined substantially.
- New specialized web browsers are also being brought to market – e.g. RockMelt.

# Web Centric Computing and Open Source Google Chrome

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- The reality in the market is that:
  - There are a number of applications that can not be migrated to the web.
  - Organizational enterprise is accepting SaaS: software as a service as an option for more applications and a larger share of its information technology infrastructure.
  - Major software companies such as Microsoft, Oracle, and SAP are adapting their applications to SaaS.
- It is still to be determined whether there will be a need for a cloud based operating system, such as Google Chrome, and whether it will cause a reset to occur in application development.

# Mobile Device Programming: New Courses

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- SYS-ED has developed its initial courses for smartphones and mobile device programming.
- UNIX and Java courses and training programs are being extended with application design and coding modules for smartphones and mobile devices.
- Submitting the keyword “mobile devices” in the [SYS-ED course search engine](#) will provide both:
  - Industry standard freeware and open source software courses and the associated major topics.
  - Industry standard commercial software courses.

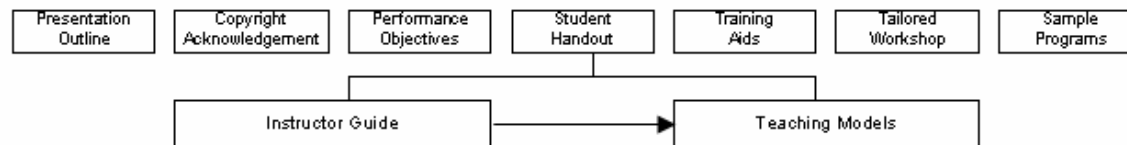
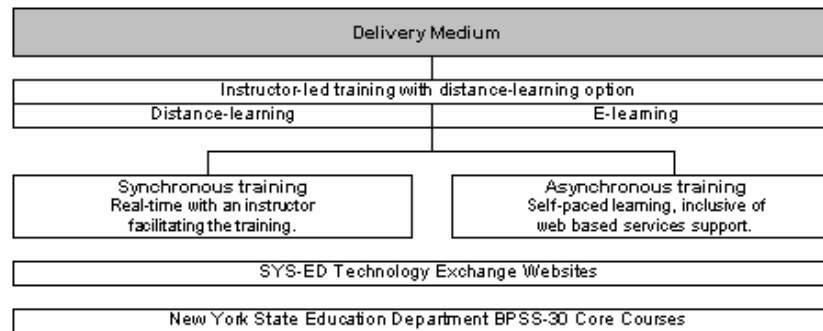
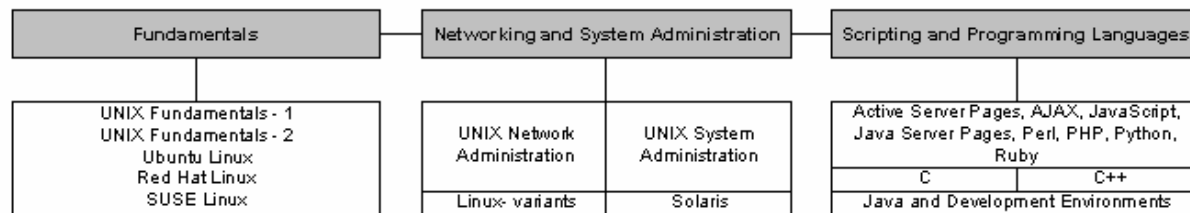
# Freeware and Open Source Software: Curriculum

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- SYS-ED freeware and open source software courses have been developed to meet the standards of the New York State Department of Education.
  - [Executive Summary](#)
  - [Knowledge Transfer](#)
  - [Knowledge Transfer Foundation](#)
- SYS-ED's instructor-led classroom and web-based courses have a common foundation.

# Foundation for Presentation of Open Source Subject Matter



# New York State Dept of Education

## BPSS-30 Lesson Plans

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- The lesson plans incorporate industry standard content and consultancy derived techniques for:
  - Linux- and UNIX-variant configuration, internetworking, and administrative scripting.
  - web server configuration, scripting, and performance optimization.
  - designing, coding, and debugging Java applications and using development tools.
  - mobile device programming on Android smartphones and mobile devices.
  - XML integration with databases, web servers, and Java.

# Courseware and Presentation of Subject Matter

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- SYS-ED's courseware has been designed to utilize a variety of presentation formats - textual, tabular, diagrammatic, bullet point, code snippets - and to be suitable for use in traditional instructor-led classroom and distance- and e-learning formats.
  - SYS-ED's web design, Linux, UNIX, web server, scripting, mobile device programming, and Java open source courseware library has been incrementally updated and refined.
  - It is highly valued in hybrid information technology.

# Computer Education Techniques Knowledge Base

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- Content from the Computer Education Techniques Knowledge Base is derived from the compilation and independent assessment of information in the public domain:
  - [www.computeredtech.com/shared/knowledge\\_base.asp](http://www.computeredtech.com/shared/knowledge_base.asp)
- Content is used to:
  - Update lesson plans, courseware, and training aids.
  - Tailor courses to client specific training needs and operational objectives.
  - Augment industry standard training programs.

# Industry Standard Textbooks

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- In conjunction with maintaining its knowledge base, Computer Education Techniques reviews industry standard textbooks and analyzes them in relation to published benchmarks, white papers, and feedback from technology partners on consultancy assignment.
- Subject matter is synthesized and extended with industry- and client- specific examples, sample programs, and integrated exercises from hybrid combinations of commercial and open source software.

# Industry Standard Textbooks and Presentation Slides - 1

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- Chapters from text books in interrelated areas of information technology are consolidated and sequenced into lesson plans and performance objectives.
- The standard format is:
  - Modular Content
  - Copyright Acknowledgement
  - Presentation Outline
  - Modular Lessons
  - Review Questions
  - Bibliography
  - Exercises
  - Index

# Industry Standard Textbooks and Presentation Slides - 2

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- Presentation slides are then developed.
  - Hyperlinks present terminology, diagrams, and examples, which are interrelated among commercial software products and open source software.
- Courseware can be reviewed at SYS-ED websites.
  - Training aids can be downloaded free of charge.
- Courseware is updated prior to use.

# SYS-ED Brand and CETi Technology Partners

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- Freeware and open source courses are conducted under the SYS-ED brand and in conjunction with and through CETi Technology Partners.
- As part of presenting an instructor-led information technology course at the client location, courseware is evaluated and organized for subsequent use in a web-based infrastructure and delivery medium.
- This service is provided free of charge.

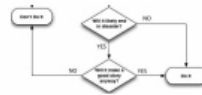
# Submitting Information Technology Questions



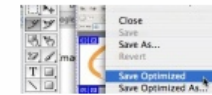
Submit a Information Technology Question

[Home](#)

	<b>To:</b>	dsilverberg@sysed.com
	<b>Subject:</b>	IT Question - <a href="http://www.computeredtech.com">http://www.computeredtech.com</a>



```
--Set timers for last run  
PRO_GLD.LSTIME := 0.0;  
PRO_GLD.TIMROW := 0.0;  
  
--Hard wire Dt or Delta T  
PRO_GLD.DT := 0.02;
```



From:

First Name	Last Name
<input type="text"/>	<input type="text"/>
<b>Title</b>	<b>Company</b>
<input type="text"/>	<input type="text"/>
<b>Address</b>	<b>Address 2</b>
<input type="text"/>	<input type="text"/>
<b>City</b>	<b>State</b>
<input type="text"/>	<input type="text"/>

Clients are welcome to submit freeware and open source software and interrelated information technology questions to SYS-ED staff.

# Answers to Questions: Client Support

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[www.sysed.com/forms/frm\\_tech\\_question.asp](http://www.sysed.com/forms/frm_tech_question.asp)

- Questions are reviewed and answered on a first come/first serve basis.
- This service is provided free of charge.
- Answers to questions are distributed through SYS-ED categorized and software specific websites.

# Answers to Questions: Freeware and Open Source Software

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## Value Added Service

- [www.javatrainingbysysed.us/commquests.htm](http://www.javatrainingbysysed.us/commquests.htm)
- [www.unixtrainingbysysed.us/commquests.htm](http://www.unixtrainingbysysed.us/commquests.htm)
- [www.xmltrainingbysysed.us/commquests.htm](http://www.xmltrainingbysysed.us/commquests.htm)

# Answers to Questions: Hybrid and Interrelated IT

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## Value Added Service

- [www.databasetrainingbysysed.us/commquests.htm](http://www.databasetrainingbysysed.us/commquests.htm)
- [www.oracletrainingbysysed.us/commquests.htm](http://www.oracletrainingbysysed.us/commquests.htm)
- [www.programmingbysysed.us/commquests.htm](http://www.programmingbysysed.us/commquests.htm)
- [www.computeredtech.biz/webfocus/commquests.htm](http://www.computeredtech.biz/webfocus/commquests.htm)
- [www.weblogictrainingbysysed.us/commquests.htm](http://www.weblogictrainingbysysed.us/commquests.htm)
- [www.webspheretrainingbysysed.us/commquests.htm](http://www.webspheretrainingbysysed.us/commquests.htm)
- [Web Design](#)
- [Web Servers](#)

# SYS-ED Websites - 1

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- SYS-ED websites provide information on the state of the software and the course offerings, training programs, and training services available to address specific operational objectives.
- Freeware and Open Source Software
  - [www.javatrainingbysysed.us](http://www.javatrainingbysysed.us)
  - [www.unixtrainingbysysed.us](http://www.unixtrainingbysysed.us)
  - [www.xmltrainingbysysed.us](http://www.xmltrainingbysysed.us)

# SYS-ED Websites - 2

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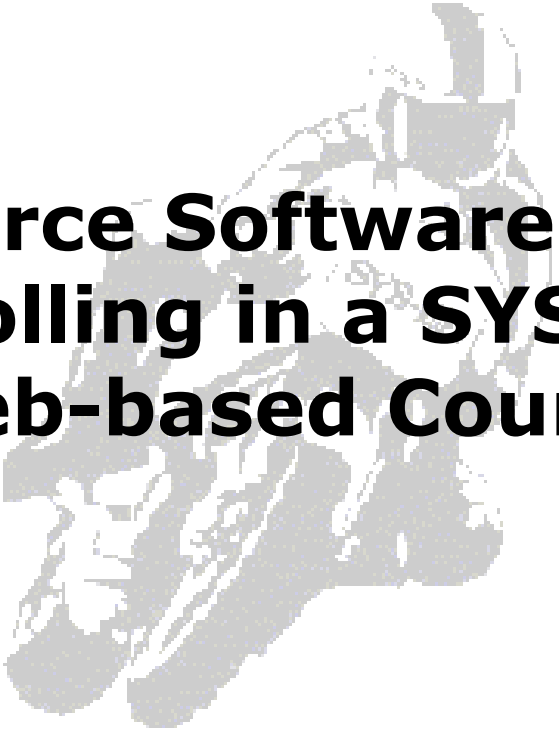


- SYS-ED websites provide information on the state of the software and course offerings and training programs for addressing specific operational objectives.
- Commercial and Hybrid Implementations of Open Source Software
  - [www.pcappplicationstrainingbysysed.us](http://www.pcappplicationstrainingbysysed.us)
  - [www.databasetrainingbysysed.us](http://www.databasetrainingbysysed.us)
  - [www.oracletrainingbysysed.us](http://www.oracletrainingbysysed.us)
  - [www.programmingbysysed.us](http://www.programmingbysysed.us)
  - [www.weblogictrainingbysysed.us](http://www.weblogictrainingbysysed.us)
  - [www.webspheretrainingbysysed.us](http://www.webspheretrainingbysysed.us)

# Walkthrough - Example

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## **Open Source Software Training: Enrolling in a SYS-ED Web-based Course**



# SYS-ED / New York: Open Source Software Training

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- The central location for reviewing the SYS-ED open source training services and the state of information technology software is [www.sysed.com](http://www.sysed.com).
- Information on SYS-ED / New York open source software course offerings is available from:
  - 1- Course Search Engine  
[www.sysed.com/shared/search\\_engine.asp](http://www.sysed.com/shared/search_engine.asp)
  - 2- SYS-ED Categorized and Software Specific Websites

# SYS-ED / New York: Open Source Software Courses



## Content Delivery Selection: Cost, Time Compression, and Convenience



- Industry standard instructor-led and web-based freeware and open source software course offerings are available through the [SYS-ED / New York schedule](#).

### [Schedule a Consultation](#)

A screenshot of the SYS-ED website's 'Schedule a Consultation' form. The form is titled 'SYS-ED' and 'Consultation Request Form'. It includes a 'Name' field, a 'Company' field, and a 'Phone' field. There are also several checkboxes and a 'Submit' button. The form is framed by a blue border.

# SYS-ED / New York: Course Search Engine - 1



## 1 - Course Search Engine

[www.sysed.com/shared/search\\_engine.asp](http://www.sysed.com/shared/search_engine.asp)

**CETi** Computer  
Education  
Techniques, Inc.



Course Search Engine

[Home](#)

[Definition of Service](#)

[Enrollment](#)

[Contact You](#)



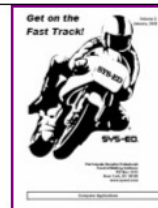
Search

[Advanced search](#)

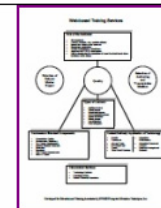
The course search engine reflects our [unique experience](#) as leading edge [implementers of evolutionary and emerging software technology](#). It provides a straightforward approach for locating and reviewing information on (1) industry standard subject matter (2) consultancy derived content and (3) tailored educational consultancy.



Traditional Classroom Training



Technology Driven IT Training



Web-based Training Services

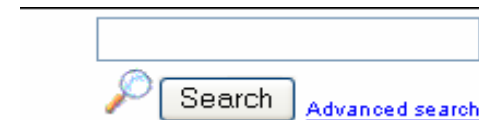
# SYS-ED / New York: Course Search Engine - 2

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- The course search engine can be used to locate and review a specific course: audience, major topics, dates, and fee.

Keywords can be used to research an entire open source curriculum; which for major categorizations of open source software will have an accompanying website.



# Course Search: Keywords and Associated Website

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- C++ [www.programmingbysysed.us](http://www.programmingbysysed.us)
- C Programming [www.programmingbysysed.us](http://www.programmingbysysed.us)
- Java [www.javatrainingbysysed.us](http://www.javatrainingbysysed.us)
- UNIX [www.unixtrainingbysysed.us](http://www.unixtrainingbysysed.us)
- Linux [www.unixtrainingbysysed.us](http://www.unixtrainingbysysed.us)
- Red Hat [www.unixtrainingbysysed.us](http://www.unixtrainingbysysed.us)
- SUSE [www.unixtrainingbysysed.us](http://www.unixtrainingbysysed.us)
- Ubuntu [www.unixtrainingbysysed.us](http://www.unixtrainingbysysed.us)
- XML [www.xmltrainingbysysed.us](http://www.xmltrainingbysysed.us)

# Search Engine: Researching Linux - Example - 1



**Initiating a query for researching Linux training.**



Linux

  [Advanced search](#)

---

*Advanced Search*

---

Search for:

Search for Course ID

The results of a search on the Linux keyword using the Course Search Engine are displayed on the next three screens.

# Search Engine: Researching Linux - Example - 2



Fundamentals & Operating Systems :: Basics		
Course ID	Course Title	Duration
PCSYS49	<a href="#">Linux - Introduction</a>	1 day
UXLIN02	<a href="#">Red Hat Linux Essentials</a>	4 days
UXLIN08	<a href="#">Fedora Linux: Introduction</a>	2 days
UXLIN40	<a href="#">SUSE Linux Fundamentals</a>	3 days
UXLIN50	<a href="#">Ubuntu Linux Desktop for Users</a>	1 day
UXSYS12	<a href="#">UNIX and Linux - Introduction</a>	4 days
UXSYS13	<a href="#">Linux Desktop - Introduction</a>	4 days
UXSYS19	<a href="#">UNIX and Linux - Introduction - TC</a>	4 days
Fundamentals & Operating Systems :: Installation & Support		
Course ID	Course Title	Duration
PCSY113	<a href="#">Linux Client Administration</a>	2 days
PCSY161	<a href="#">Linux Performance Monitoring and Tuning</a>	3 days
PCSYS83	<a href="#">Linux Installation, Configuration, and Support</a>	4 days
UXLIN01	<a href="#">Red Hat Linux</a>	4 days
UXLIN44	<a href="#">SUSE Linux Troubleshooting</a>	3 days
UXLIN51	<a href="#">Ubuntu Linux Desktop Support</a>	3 days
UXSYS07	<a href="#">Linux for Support Personnel</a>	2 days
UXSYS16	<a href="#">UNIX and Linux: Optimization and Troubleshooting</a>	4 days
UXSYS33	<a href="#">UNIX, Linux, and MS Windows: Diagnostics and Tuning</a>	3 days

# Search Engine: Researching Linux - Example - 3



Fundamentals & Operating Systems :: Implementation		
Course ID	Course Title	Duration
UXLIN42	<a href="#">SUSE Linux Administration</a>	4 days
UXLIN43	<a href="#">SUSE Linux Administration - Advanced</a>	3 days
Fundamentals & Operating Systems :: Risk Management & Security		
Course ID	Course Title	Duration
UXSYS24	<a href="#">UNIX and Linux: Security</a>	4 days
Networks :: Installation & Support		
Course ID	Course Title	Duration
UXLIN04	<a href="#">Red Hat Linux Enterprise Deployment and Systems Management</a>	4 days
Networks :: Operations		
Course ID	Course Title	Duration
PCNET70	<a href="#">Linux TCP/IP Networking and Services</a>	4 days
Networks :: Implementation		
Course ID	Course Title	Duration
PCNE205	<a href="#">Linux Network Internals</a>	3 days
UXLIN03	<a href="#">Red Hat Linux System Administration</a>	4 days
UXLIN05	<a href="#">Red Hat Linux Enterprise System Monitoring and Performance Tuning</a>	3 days
UXLIN06	<a href="#">Red Hat Linux Network Administration</a>	4 days

# Search Engine: Researching Linux - Example - 4



Networks :: Web Servers		
Course ID	Course Title	Duration
PCNE206	<a href="#">UNIX and Linux: Server Management</a>	3 days
PCSY114	<a href="#">Linux Server Management</a>	2 days
UXLIN52	<a href="#">Ubuntu Linux Server Administration</a>	4 days
UXSYS20	<a href="#">Linux Server Installation and Configuration</a>	4 days
Networks :: Risk Management & Security		
Course ID	Course Title	Duration
UXLIN07	<a href="#">Red Hat Linux Networking and Security Administration</a>	4 days
Application Development :: UNIX Programming		
Course ID	Course Title	Duration
UXPRG09	<a href="#">UNIX and Linux: Programming</a>	4 days
UXPRG10	<a href="#">UNIX and Linux: Korn Shell Programming</a>	4 days
UXSYS11	<a href="#">UNIX and Linux: Tools and Utilities</a>	4 days
WBDEV74	<a href="#">UNIX, Linux, and Win32 Networks: Perl Programming</a>	4 days
Application Development :: Java Enterprise Development		
Course ID	Course Title	Duration
WBDE150	<a href="#">Java in Linux</a>	5 days
Other Mainframe :: Programming Skills		
Course ID	Course Title	Duration
MFPRS32	<a href="#">TCP/IP: z/VM: Linux</a>	4 days
DB2 UDB :: Database Administration		
Course ID	Course Title	Duration
MFRDB44	<a href="#">DB2 UDB: Database Administration - Linux</a>	4 days

# Search Engine: Researching Linux - Example - 5

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- The screen on the next page is presented by invoking the Course Title associated with the Course ID - PCSYS83 Linux Installation, Configuration, and Support from the search query table.
- The following information is provided:
  - Duration
  - Fee
  - Audience
  - New York course dates
  - Major Topics

# Search Engine: Linux - Example - 1



**PCSYS83**

[Enrollment](#)  
[Home](#)



**Get on the Fast Track!**

[Why SYS-ED](#)  
[Technology Driven IT Training](#)  
[Industry Leader](#)

[Why Web-based Training](#)  
[Why Web-based Training by SYS-ED](#)  
[Distance-learning Center](#)

[Technology Assessment](#)  
[Technology Updates](#)  
[Submit IT Questions](#)

## Linux Installation, Configuration, and Support

**DURATION:** 4 days

**FEE:** \$1,980  
Call for group fee.

**AUDIENCE:**

- Network Administrator
- Support Personnel
- Security Analyst
- IT Professional

**DATES:**

2011: 3/28-31 10/3-6

**MAJOR TOPICS:**

- Featureset
- Linux installation
- System management tools
- Installation techniques
- Start-up and shutdown
- System administration tools
- X Window system
- RAID: Redundant Array of Independent Disks
- File systems
- Kernel compilation and configuration
- User-level administration and security
- Networking

[Have a Training Consultant Contact Me](#)

[Send Me a Comprehensive Outline](#)

[Distance-learning](#)

[Private Course - Tailored](#)

[Send this to a Colleague](#)

[Cost Analysis](#)

[IT Consultancy](#)

[Courseware](#)

The course material and training aids utilized in SYS-ED courses are from multiple sources: wholly original courseware generated by staff members, licensed materials from satellite instructors and training partners, text books, public sources via the Internet, and the source vendor's documentation. A variety of formats are utilized in order to effectively teach different types of software.

# Search Engine: Linux - Example - 2

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- There will be hyperlinks to information specific to that course:
  - Technology Assessment
  - Technology Updates
- There is a rectangular gray button with a hyperlink to distance-learning.
- Invoking that button will present a screen either with:
  - 1 - Course dates, performance objectives, hands-on exercises and case studies included with the lesson plan for conducting the course in a distance-learning delivery medium.
  - 2 - The SYS-ED Distance-learning Center.

# Distance-learning is Available - 1

---



- The screen on the next page will be presented when Course ID - PCSYS83 Linux Installation, Configuration, and Support is available in a web-based training delivery medium.
- The standard distance-learning course is 65% lecture with the remaining 35% of the service provided in the form of scheduled interactive question and answer sessions with a subject matter expert, hands-on exercises, and optional validation assessment.

# Distance-learning is Available - 2



## PCSYS83

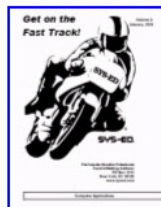
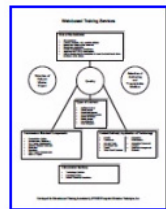
**FEE:** \$1,980  
Call for group fee.

### AUDIENCE:

- Network Administrator
- Support Personnel
- Security Analyst
- IT Professional

### DATES:

2011: 3/29-31 10/3-6



### Defining Quality Distance-learning

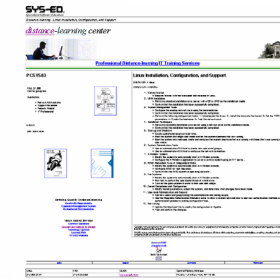
[Bandwidth Requirements](#)  
[Classroom Management System](#)  
[Bi-directional Communication](#)

## Linux Installation, Configuration, and Support

**DURATION:** 4 days

### HANDS-ON TRAINING:

1. Getting Started
  - Become familiar with the featureset and versions of Linux.
2. UNIX Installation
  - Perform a standard installation on a server with a CD or DVD as the installation media.
  - Confirm that the installation has been successfully completed.
3. System Management Tools
  - Configure the existing network card using the command-line.
  - Confirm that the installation has been successfully completed.
  - Perform the following configuration tasks: 1- Uncompress the driver. 2- Install the drive into 3- Set the TCP/IP parameters. 4- Create the hostname. 5- Test the network card.
4. Installation Techniques
  - Perform a complete installation on a server using a network drive as the installation media.
  - Confirm that the installation has been successfully completed.
5. Start-up and Shutdown
  - Create customized scripts at boot time.
  - Boot the system into single user mode and list the system daemons that are running.
  - Boot the system into multi-user mode and compare the system daemons that are running with those that were running in single user mode.
6. System Administration Tools
  - Use an administration GUI tool to create new users and groups.
  - Use an administration GUI tool to configure the network connection.
7. X Window System
  - Modify the system to automatically start in X Windows mode.
  - Configure the X Windows application to run on a remote system using an X11 server.
8. RAID: Redundant Array of Independent Disks
  - Modify the system to automatically start in X Windows mode.
  - Configure RAID for fault tolerance.
  - Confirm that the RAID system is operating correctly.
9. File Systems
  - Modify the system to automatically start in X Windows mode.
  - Run fsck to confirm the operational status of a disk drive.
  - Turn on the quota system in order to limit user disk usage.
10. Kernel Compilation and Configuration
  - Modify kernel parameters, reboot the system, and determine what changes have been made.
11. User-level Administration and Security
  - Add new users and groups using the command-line and coding scripts.
  - Use the Pluggable Authentication Module in order to allow a system administrator to add new authentication methods and modify authentication policies by editing configuration files.
12. Networking
  - Update the httpd.conf file to modify the configuration of Apache.
  - Test and confirm the changes.



# Distance-learning is Not Available - 1



- When the Distance-learning Center screen is presented after being invoked from a Course ID row selection, this indicates that the course is not available in a distance-learning delivery medium in conjunction with the SYS-ED/New York schedule.
- Not all information technology subject matter is well suited or available in a web-enabled learning format.  
[www.sysed.com/dlearn/distlearn.asp](http://www.sysed.com/dlearn/distlearn.asp)
- A telephone consultation can be requested in order to ascertain whether the course can be presented on a private basis through a web-based delivery medium.

# Distance-learning is Not Available - 2



**SYS-ED**  
Specialized Software Education



[Distance-Learning](#)

[Home](#)

[Definition of Service](#)

[Why Web-based Training](#)

[Web-based Training by SYS-ED](#)

[Technology Driven Classrooms](#)




[Enrollment](#)

[Contact Us](#)

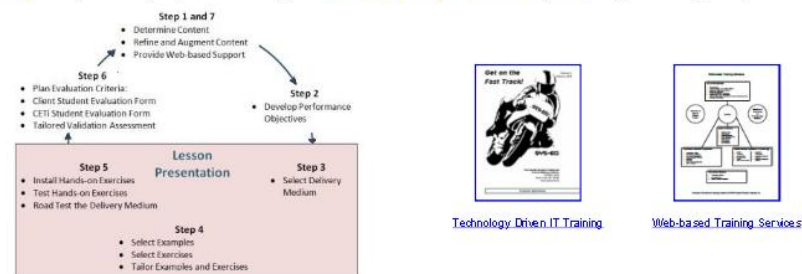
[Advanced search](#)

This service is being developed and marketed based upon the standards and regulations of the New York State Department of Education, Bureau of Proprietary School Supervision: Sections 5001 through 5010 of Education Law and Part 126 of the Regulations of the Commissioner of Education.

## *distance-learning center*

<a href="#">Bandwidth</a>	<a href="#">Classroom</a>	<a href="#">Bi-directional Communication</a>
		
<b><a href="#">Professional Distance-Learning</a> <a href="#">IT Training Services</a></b>		

SYS-ED training services are available in a web-based learning format. The standard distance-learning course is an extension of the New York schedule, inclusive of courseware and training aids. The established guidelines, prescribed in adult learning theory are applied in qualifying our distance-learning service with a prospective client. The standard distance-learning course is 65% lecture with the remaining 35% of the service provided in the form of scheduled interactive question and answer sessions with a subject matter expert, hands-on exercises, optional validation, assessment, and submission of questions through our technology exchange web sites.



Enrollment requires a consultation with the manager sending the employee for the training. It is contingent upon the prospective trainee's having been qualified by a licensed Director to have the appropriate background for the training and review of a checklist of items required for transmission of the service to the client location: bandwidth, firewall, base operating system, software requirements, web browser, and set-up of hands-on machine exercises. SYS-ED reserves the right to deny enrollment in its courses.

Alternative web-based and e-learning training is available: self-paced, presentation through the client's authoring system, or podcast. Client organizations are presented with a palette of medium to select from in order to address selection of content, time compression, scheduling, and operational requirements. These tailored services are offered selectively.

# Private Training: Open Source Software

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- Any SYS-ED open source software course can be taught on a private basis as an instructor-led course at the client location.
- As part of this process, SYS-ED reviews the subject matter, sample programs, workshops, and installation standards with the prospective client.
- In conjunction with presenting an instructor-led open source software course at the client location, courseware is organized for subsequent use in a web-based infrastructure and delivery medium.

# SYS-ED Open Source Software Websites - 1



## 2- Categorized and Software Specific Websites

- SYS-ED maintains three dedicated open source software websites.
  - [www.javatrainingbysysed.us](http://www.javatrainingbysysed.us)
  - [www.unixtrainingbysysed.us](http://www.unixtrainingbysysed.us)
  - [www.xmltrainingbysysed.us](http://www.xmltrainingbysysed.us)
- The websites have been designed to provide a framework for assessing SYS-ED's freeware and open source training services in relation to an organization's operational requirements.

# SYS-ED Open Source Software Websites - 2

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- Each open source software website has a schedule with the course ID, course title, fee, and New York course dates.
- Directly adjacent and below the New York Schedule hyperlink will be:
  - Additional schedules for interrelated open source and commercial course offerings.
  - Hyperlinks summarizing the costs associated with the different delivery medium.

# SYS-ED Open Source Software Websites - 3

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- The websites also provide:
  - A course search engine.
  - Learning paths.
  - Technology updates.
  - Hyperlinks to technology assessments.
  - Sample courseware and training aids.
  - Validation assessment questions.
  - E-mail support for submitting information technology questions.
  - Answers to information technology questions.

# SYS-ED Open Source Software Websites - 4



- Starting from the home page of an open source software website, invoke the New York Schedule hyperlink in the first grey rectangular button.
- The course titles available through the New York Schedule will be presented.
- Each schedule will present on screen the course ID, course title, fee, and New York course dates.
- Directly adjacent and below the New York Schedule hyperlink will be schedules for interrelated open source and commercial course offerings, along with a hyperlink summarizing the costs associated with the different delivery medium.

# [www.javatrainingbysysed.us](http://www.javatrainingbysysed.us) - New York Schedule



- Home Page: Java website
  - [www.javatrainingbysysed.us](http://www.javatrainingbysysed.us)
- Invoke the Java Courses New York Schedule hyperlink within the first grey rectangle.

<a href="#">Java Course New York Schedule</a>	<a href="#">Web Logic Schedule</a>
<a href="#">WebSphere Schedule</a>	<a href="#">Core Analysis</a>

The Java courses available through SYS-ED / New York will be presented.

# [www.unixtrainingbysysed.us](http://www.unixtrainingbysysed.us) - New York Schedule



- Home Page: UNIX website
  - [www.unixtrainingbysysed.us](http://www.unixtrainingbysysed.us)
- Invoke the UNIX Courses New York Schedule hyperlink within the first grey rectangle.



The UNIX courses available through SYS-ED / New York will be presented.

# [www.xmltrainingbysysed.us](http://www.xmltrainingbysysed.us) - New York Schedule



- Home Page: XML website
  - [www.xmltrainingbysysed.us](http://www.xmltrainingbysysed.us)
- Invoke the XML Courses New York Schedule hyperlink within the first grey rectangle.

<a href="#">XML Schedule New York Schedule</a>	<a href="#">Database Schedule</a>
<a href="#">MS .NET Schedule</a>	<a href="#">Java Schedule</a>
<a href="#">Web Servers Schedule</a>	<a href="#">Cost Analysis</a>

The XML courses available through SYS-ED / New York will be presented.

# UNIX and Linux - Example - 1

## SYS-ED / New York

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- Starting from [www.unixtrainingbysysed.us](http://www.unixtrainingbysysed.us), invoke the “UNIX Courses New York Schedule” hyperlink button.
- The UNIX and Linux course titles and dates for industry standard classroom instruction and distance-learning will be presented:
  - course ID, course title, fee, and New York course dates.
- As of November 2010, there were 16 courses with dates.
- The next 2 pages present an example using the home page of [unixtrainingbysysed.us](http://unixtrainingbysysed.us).
  - Only the top portion of the schedule is used in this example.

# UNIX and Linux - Example - 2

## SYS-ED / New York (Top)



### IT Training by SYS-ED® Computer Education Professionals

SYS-ED courses are not intended for or available to the general public. They are only available to employees from Fortune 1000 companies, government municipalities, consulting companies, healthcare providers, and mid-sized businesses. Individuals attending such courses will be required to execute a statement acknowledging that his/her employer will be paying for them to attend a SYS-ED course and that the employer has a licensed version of the software.

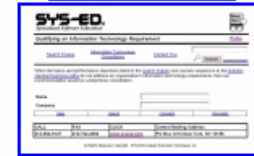
[IT Training Alternatives](#)



[Traditional Classroom or Distance-learning](#)



[Schedule a Consultation](#)






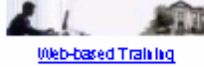
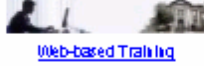

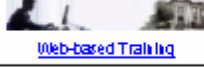

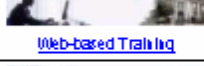

[UNIX](#)

- On the next page:
  - Invoking the SYS-ED icon presents the information for classroom instruction.
  - Invoking the Web-based training icon, the individual sitting at a computer tethered to a building, presents information for distance-learning.

# UNIX and Linux - Example - 3

## SYS-ED / New York (Top)



UNIX					
Course ID	Course Title	Interactive Subject Matter Expert		Fee	New York Dates
UXSYS01	<a href="#">UNIX: Fundamentals - Level 1 (3 day)</a>	<b>SYS-ED.</b> <a href="#">Classroom Instruction</a>	 <a href="#">Web-based Training</a>	\$1,485	2011: 1/24-26 5/24-26 10/11-13 11/22-24
UXSYS03	<a href="#">UNIX: Fundamentals - Level 2 (3 day)</a>	<b>SYS-ED.</b> <a href="#">Classroom Instruction</a>	 <a href="#">Web-based Training</a>	\$1,485	2011: 3/14-16 9/12-14
PCSYS63	<a href="#">Linux: Installation, Configuration, and Support (4 day)</a>	<b>SYS-ED.</b> <a href="#">Classroom Instruction</a>	 <a href="#">Web-based Training</a>	\$1,980	2011: 3/28-31 10/3-6
UXSYS04	<a href="#">UNIX: System Administration (3 day)</a>	<b>SYS-ED.</b> <a href="#">Classroom Instruction</a>	 <a href="#">Web-based Training</a>	\$1,485	2011: 4/4-6 10/17-19
UXNET01	<a href="#">UNIX: Network Administration (3 day)</a>	<b>SYS-ED.</b> <a href="#">Classroom Instruction</a>	 <a href="#">Web-based Training</a>	\$1,485	2011: 4/11-13 10/24-26
UXPRG05	<a href="#">UNIX: Shell Programming (3 day)</a>	<b>SYS-ED.</b> <a href="#">Classroom Instruction</a>	 <a href="#">Web-based Training</a>	\$1,685	2011: 6/13-15 12/19-21
UXPRG03	<a href="#">UNIX: Programming (4 day)</a>	<b>SYS-ED.</b> <a href="#">Classroom Instruction</a>	 <a href="#">Web-based Training</a>	\$2,280	2011: 5/2-5 11/28-12/1
UXPRG04	<a href="#">UNIX: Programming - Advanced (4 day)</a>	<b>SYS-ED.</b> <a href="#">Classroom Instruction</a>	 <a href="#">Web-based Training</a>	\$1,980	2011: 5/9-12 12/5-8
UXLIN11	<a href="#">Solaris: Fundamentals (4 day)</a>	<b>SYS-ED.</b> <a href="#">Classroom Instruction</a>	 <a href="#">Web-based Training</a>	\$1,580	2011: 1/4-7
UXLIN15	<a href="#">Solaris 10: New Features (5 day)</a>	<b>SYS-ED.</b> <a href="#">Classroom Instruction</a>	 <a href="#">Web-based Training</a>	\$1,975	2011: 6/6-10

# UNIX and Linux - Example - 4

## SYS-ED / New York

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- Invoking the web-based delivery icon will indicate whether the course is available through the New York schedule in a distance-learning format.



- When the Course ID and Course Title are presented on screen with performance objectives, hands-on exercises, and course dates, this indicates that the course is available in conjunction with the New York schedule.
- A course outline can be requested using the on-line form.

# Enrolling in a SYS-ED / New York Course

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- For organizations evaluating whether to send an employee to a SYS-ED / New York course, a telephone consultation is required.
  - It is our prerogative to ensure that the employee has the prerequisite background and is placed in the appropriate course.
  - Not everyone is allowed to enroll in a SYS-ED mainframe course.
- Enrollment can be made on-line from the home page of any SYS-ED website or directly from the following url:
  - <http://www.sysed.com/regform.asp>

# Enrollment in a SYS-ED / New York Course - 1



**SYS-ED**  
Specialized Software Education



## Enrollment

[Back](#)

[Schedules](#)

[SYS-ED Catalog](#)

[Cost Analysis](#)

[Transportation to  
Manhattan and Hotels](#)

[Submit IT Questions](#)

[Contact You](#)

  
 [Advanced search](#)

## Assessments

<a href="#">Computer Applications</a>	<a href="#">UNIX</a>
<a href="#">Mainframe</a>	<a href="#">Java</a>

## Status

SYS-ED has been conducting courses in the public domain since 1980; however, there have been changes in the laws and regulations governing computer training in the state of New York. The schedule on our websites reflects a projected time frame for licensure with the New York State Department of Education - Bureau of Proprietary School Supervision and submission and approval of curriculum. It will be updated every quarter.

In the interim, we will continue to provide training at the client location for small groups and upon request one-on-one training at the client location.

[We apologize for the inconvenience and look forward to serving you in the years to come.](#)

Prior to enrollment in a SYS-ED course, it is a requirement that the organization sponsoring the employee for training receive a catalog.

*To enroll, the following information needs to be provided.*

### Authorized Purchaser - Invoices will be sent to:

\* First Name

Title

\* Address

\* Last Name

Organization

Address 2

# Enrollment in a SYS-ED / New York Course - 2



Prior to enrollment in a SYS-ED course, it is a requirement that the organization sponsoring the employee for training receive a catalog.

To enroll, the following information needs to be provided.

### Authorized Purchaser - Invoices will be sent to:

\* First Name

Title

\* Address

\* City

\* Zip/Postal Code

\* Daytime Phone

Fax

Please keep me on your mailing list for future events

Payment Type

Authorized by:

\* Last Name

Organization

Address 2

\* State

Country

Evening Phone

\* E-mail Address

Yes  No

Check

If purchase order, P.O. number

### Student Name(s): Confirmations will be sent to:

Student Name(s): Confirmations will be sent to:			Course Description		Date	Fee
First Name	Last Name	E-mail	Course Name			
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>
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<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>
					Total	<input type="text"/>