

CATALOG

2012-2013

VOLUME X
(Based on Years in Operation)



Technical Institute of Professional Services
35612 West Michigan Avenue
Wayne, Michigan 48184
(734) 403-3190

www.a-tipsonline.com

President's Message

Welcome to A-TIPS! We invite you to join us on an exciting journey of learning and accomplishment that will promote your talents, enrich your mind, and make your creative spirit soar. As a student at A-TIPS, you will receive a valuable education in a specialized and intimate setting.

We have a diverse population on campus. Our faculty has working professionals in their respective fields, providing real-world perspective and industry standards in the classroom to prepare you for employment upon graduation.

We are proud of our accomplishments at A-TIPS. Since our establishment, we have been a mainstay of higher education in Detroit Area, providing quality education in Information Technology programs to local, regional and national students.

We are committed to providing you with a quality education, offering certificate programs in Computer Networking, Computer Programming, Computer Repair, Database Administration, Desktop Applications, Word Processing, Graphic Design and Web Design. We also offer career counseling services to help you each step along the way. Our goal is your success.

In return, we ask that you dedicate yourself to your program of study and assume responsibility by getting involved in all that we have to offer. You have an opportunity to learn from professionals in a hands-on environment while, at the same time, making professional contacts and lifelong friendships.

Wishing you every success,

President
A-TIPS

School Calendar 2012-2013

A-TIPS

- Memorial Day Holiday Wednesday, May 30, 2012
- Independence Day Holiday Monday, July 2, 2012 through Friday, July 6, 2012
- Labor Day Holiday Monday , September 3, 2012
- Veterans' Day Holiday Monday, November 12, 2012
- Thanksgiving Recess Monday November 26 through Friday, November 30, 2012
- Winter Recess Friday, December 21, 2012 through Tuesday, January 1, 2013
- Martin Luther King, Jr. Day Thursday, January 17, 2013
- Lincoln's Birthday Holiday and Presidents' Day Holiday
 Sunday, February 17, 2013 and Wednesday, February 20, 2013
- Easter Holiday Friday, April 05, through 08, 2013

All calendar dates are subject to change without notice.

NOTICE The information contained in this catalog is advisory only and does not constitute a contractual agreement by the institute or guarantee that course content will be strictly followed or fulfilled. A-TIPS reserves the right to change at any time, without notice, academic requirements to graduate, curriculum course content and structures, and such other matters as may be within their control, notwithstanding any information set forth in this catalog.

About Us

Location

A-TIPS is located in the city of Wayne, in Wayne County, Michigan.

For commuters, this beautifully landscaped campus is easily accessible to the 94 and 275 Freeways. The institute is within close walking distance from the Metro place Mall in downtown Wayne, and the buses regularly drop off and pick up students in front of the institute on Michigan Avenue.

A-TIPS is in close proximity to several cultural and entertainment venues in Wayne County and Greater Detroit Area. It is also conveniently located near other institutions of higher learning in the city.

Institute Goals and Objectives

As an institution, A-TIPS is committed to three major areas of activity as reflected in the following goals and objectives:

Focus: Student Access and Success

Goal: A-TIPS is committed to enhancing student access and success in order to meet the lifelong learning needs of the community.

- The Institute will provide programs and services to better meet the needs of students. Key components include recruitment, marketing, outreach, responsive scheduling of programs and services, and elimination of access barriers.
- The Institute will provide programs and services which assist students in defining and achieving their educational goals.

Focus: Serving the Community

Goal: A-TIPS is committed to serving the community through active involvement in its social, cultural arts, economic and educational life, thereby adding value to both the community and the institute.

- The Institute will provide opportunities to bring community members onto our campus for dialogue and interaction.
- The Institute will establish partnerships in the community to enhance programs and services that respond directly to community needs.
- The Institute will develop partnerships that enhance the ability to train students for the future.
- The Institute will engage in activities that promote resource development.
- The Institute will mirror the diversity and cultural values of the community.

Focus: Faculty and Staff Development

Goal: A-TIPS is committed to encouraging, developing, and implementing strategic staff development to maximize the effectiveness of all institute personnel.

- The Institute will provide activities and opportunities that create an environment of innovation.
- The Institute will establish programs that enhance the ability of each employee to perform effectively.
- The Institute will establish programs and opportunities to inspire teaching and learning excellence. Particular emphasis will be given to the value of technology as a means of improving student outcomes.
- The Institute will use the evaluation processes to encourage professional growth.
- The Institute will provide activities and opportunities to improve awareness and appreciation of the diversity of the campus.

Statement of Vision, Mission, and Core Values

Vision

A-TIPS will create a community that promotes inquiry and intellectual curiosity, personal growth and a lifelong appreciation for the power of learning.

Mission

- We prepare students to be successful learners.

Core Values

- We respect and value the diversity of our entire community.
- We value tradition and innovation.
- We support the involvement of all in the decision-making process.
- We expect everyone to continue growing and learning.
- We believe in the power of the individual and the strength of the group.
- We expect everyone to display behavior in accordance with personal integrity and high ethical standards.
- We accept our responsibility for the betterment of the world around us.

Statement of Ethics

As representatives of A-TIPS, we all share the responsibility to conduct ourselves with integrity, and to act in a fair, consistent, and equitable manner. We recognize the need for openness and reliability in what we say and do. We are committed to addressing issues in a forthright and professional manner, and to engaging people without prejudice. As members of an educational community, we are committed to excellence in all that we do, and to adhering to the principles of ethical behavior established in this statement.

The conduct of each member of A-TIPS is expected to be consistent with and to comply with the principles contained in this statement. All members of the campus community are expected to engage in the following:

Trustworthy conduct - including dependability, loyalty, and honesty in communications and actions.

Respectful behavior - treating everyone with civility, courtesy, tolerance, and acceptance, and recognizing the worth, dignity, and unique characteristics of each individual.

Accountability - taking personal responsibility for one's own actions and decisions.

Fair and just actions - utilizing equitable processes in decision making.

Compassion - caring for others, both within and apart from the campus community, and providing services to others in a manner that reflects our commitment to them and to their well-being.

Admission and Registration

The institute catalog must be prepared well in advance of the time period it covers; therefore, changes in some programs and policies may occur. Courses as described are subject to change without notice, and some listed courses are not offered each year. In addition, some courses or programs that are offered may have to be cancelled because of insufficient enrollment, elimination or reduction in programs, or for any other reason considered sufficient by the Institute president or designee.

Admission to the Institute

Admission Requirements

Admission to A-TIPS is governed by the laws and regulations as have been prescribed by the Board of Trustees.

The following persons are eligible to enroll in A-TIPS:

- Any person 18 years of age or older who may benefit from instruction, OR
- Any high school graduate.

Registration & Enrollment

Registration is the process of becoming officially enrolled in institute. **A student has not completed registration until the student enrollment form is signed and the registration fee and the course fee, are paid. A-TIPS has open enrollment policy. Students are allowed to enroll in a course, prior to the commence of that course, as long as they fulfill the registration requirements.**

Student Fees

- Fees are subject to change.
- Fees are payable by cash, check, MasterCard or Visa. Returned checks must be paid in the form of cash or money order, and a \$25.00 service charge will be added to the amount owed. All checks returned for "Stop Payment" will also be subject to the \$25 service charge.

Registration Fee

There is a one time registration fee of \$25 per student.

Refunds

\$25 of the application fee is non-refundable. If a student decides to withdraw from the class before the commence of the course or within three days of signing the enrollment agreement, he/she will receive his/her entire tuition fee within 3 weeks of withdrawal. Withdrawal or dismissal of a student after the class has begun, will result in a refund which will be pro-rated according to the number of days the class has been held, until the request for withdrawal or the action of dismissal was placed with the instructor. The total amount of tuition fee will become non-refundable after 80% of the class is completed regardless of the reason for withdrawal or dismissal.

In a matter of rejection by the school, before the commence of the course, all tuition fees paid by the applicant will be refunded within 3 weeks of receipt of letter of rejection from A-TIPS.

Complaints

Students who wish to file a complaint with the state of Michigan may do so at www.michiganps.net .

Cancellation of Classes

If a course is cancelled because of insufficient registration, the cost of tuition fees received will be refunded or transferred to another class as elected by the applicant. In the case of cancellation of a class for any other reason, a new course will be scheduled and all payments will be transferred. In the event that the instructor falls ill, the class will be rescheduled.

Withdrawal

If a student wishes to withdraw from a course, the withdrawal should be made in writing and delivered to the office of admissions at A-TIPS in person or by certified mail. In case of certified mail, the official date of withdrawal will be considered the date on which the office of admissions at A-TIPS receives the written request. This policy applies regardless of whether or not the student has actually started training.

Dismissal

A-TIPS remains the right to terminate this contract and dismiss the student, if the student does not comply with the rules and regulations of A-TIPS. Reinstatement following dismissal is at the discretion of the authorities of A-TIPS.

Class Size

Classes generally range in size from 8 to 10 students. Depending on the course subject matter, certain classes may contain a greater or lesser number of students.

Being A Student

Attendance

Regular and prompt attendance in class and lab sessions is expected of every A-TIPS student. Students, therefore, should be thoroughly informed of and should comply with school's attendance regulations.

Students who are late to class are responsible for informing the instructor or teaching assistant at the time of their arrival to receive partial class attendance. Likewise, a student leaving early must verify with the instructor or teaching assistant of their departure so correct hours of attendance will be recorded.

Attendance at the first class meeting is advised because of enrollment demands. However, any student not reporting to the first class will not be dropped by the instructor.

Graduation from A-TIPS is completely based on the specific attendance requirements of each program or course.

Absences

By direction of the President of A-TIPS, attendance shall be taken at all class sessions. Absences are handled as follows:

After a student accumulates an excessive number of unexcused absences in any class (more than the number of times the class meets per week), an instructor **may** notify the Admissions and Records Office. The absences may be consecutive or nonconsecutive. This notification will be processed by the Admissions and Records Office and the student **will** not be able to receive a "Certificate of Completion" at the end of the course.

In the event a student is absent for a prolonged period of time, it is expected that the student will make contact with his/her instructor(s) immediately to advise the instructor(s) of this absence and the reasons behind it. The instructors can then decide whether or not the student may continue in the class or file a section change.

Section Change

A section change denotes dropping a course and replacing it by transferring to different hours, days, instructor for the same course and/or transferring different course.

Make-up Work

If an instructor decides to allow an student to continue in a class after a lengthy absence, the student may be required by the instructor to do make-up work.

Leave of Absence

Students must meet with the Registrar at the Office of Admissions to apply in writing for a leave of absence. A leave of absence cannot exceed 180 calendar days in each twelve-month period. Only in the case of military deployment may an additional leave of absence be granted. If the student does not return from a leave of absence on the scheduled return date, the student will automatically be terminated from the Institute.

Dress Code

The Institute does not have a formal dress code; however, common sense must prevail. A student wearing attire which is disruptive to fellow students will be asked to leave class, resulting in an absence. The student has the option of returning to the class in proper attire, resulting in a late arrival.

Health, Security and Safety

The Institute makes every effort to provide a secure and safe learning environment free from distraction. The school facilities comply with all requirements of federal, state and local safety codes.

Students must be responsible for their own security and safety. Consideration of the security and safety of others is also expected. The school is not responsible for personal belongings which are lost, stolen or damaged on campus or during an off campus activity. Children and pets cannot be brought into the classroom.

Students must notify a school employee of an injury or illness either experienced or seen, of a breach in security matters, or of a crime witnessed on campus. In the case of an emergency, a school employee must be notified immediately. Employees have been instructed in how to obtain the services of the appropriate professional help in the most expedient manner.

Non-discrimination Policy

The Institute does not discriminate on any basis including sex, age, race, national origin, creed, religion or disability. The Institute complies with the provisions of Title I of the Civil Rights Acts of 1964 and 1974, the Rehabilitation Act of 1973, the American Disabilities Act, and all amendments therein.

Students with disabilities who may need special accommodations in any class must notify the admissions representative prior to the class start date. All reasonable efforts will be made to provide the requested accommodations. Documentation of the student's disability and how it impacts the student's participation must also be submitted to their admissions representative.

Course Repetition - Free Retake Policy

A student may repeat a course he/she has taken previously at A-TIPS, provided there is seating available. However, the student is responsible for the cost of books and materials. A student may repeat the course for no more than a total of 1 time altogether as long as the student is taking his/her other courses in A-TIPS without comprising the courses he/she enrolled. 90 percent attendance is required in all other course to be eligible for a retake of any course.

Course Prerequisites

All the Intermediate and Advanced level courses that are offered at A-TIPS, are based upon the knowledge and skills acquired in the Beginner level courses. It is highly advisable that a student has gained expertise at the Beginner level courses.

Description of Facility and Student Material

A-TIPS is a 2,100 square foot training facility that features two professional classrooms outfitted with the latest technology and learning tools. For our student's convenience, we set up and network our classrooms and preload the student course content on each machine. Each of our classrooms include:

- LCD projector
- White board
- Network printing capability
- Seating capacity for up to 10 students
- High Speed Internet Access

The facility also features two accessible restrooms and a common break area.

At A-TIPS, all students are provided with their own computers. Students will also have the opportunity to use the following school equipment as required throughout the program: server systems, network hubs, patch panels, routers, printers, cables and other common computer peripherals.

A-TIPS has its own private parking lot which can house up to seventeen cars at a time including two for disabled persons. Apart from A-TIPS' private parking lot, there is sufficient parking space at the back of the building.

Grading System

Although student progress is evaluated by instructors on a regular basis, A-TIPS does not have a grading system. However, any student who will not be making satisfactory academic progress in his or her program of study, will be placed on extended enrollment status, during which the student is required to repeat some or all of the courses before he or she can attempt any other courses in the student's program of study.

Credit/No Credit Policy

A-TIPS courses are not for institute credit. However, the Industry Certifications such as Microsoft or Cisco, for which the students are prepared at A-TIPS, may be of use at other accredited or non-accredited institutions, based upon the policy of that school. Credits from other institutions may be granted by the Director of Admissions and Registration upon recommendation of the counselor or the instructor.

Graduation

When all attendance requirements for graduation are successfully completed and all financial obligations have been met, A-TIPS graduates will be awarded a certificate entitled "Certificate of Completion" in their program of study.

Career Planning & Placement

The ultimate goal of A-TIPS is for graduates to be employed in their field of training. The school maintains a career services program designed to assist qualified students and graduates in obtaining career goals. Leads for full or part time job opportunities are solicited from a variety of industry sources and networking opportunities. Graduates and students are encouraged to utilize these employment opportunities as they become available. The Career Services department advises students on interviewing skills, resume writing and job search techniques. A Career Development course assists students in developing proficiency in professionalism.

The Institute cannot guarantee employment. However, most graduates who actively seek employment with the assistance of the Career Services Department secure jobs in their field of training. A statistical report indicating placement percentages for each program is provided to each prospective student by the Admissions Department prior to enrollment.

The importance of regular class attendance and satisfactory academic progress are emphasized as qualities that influence potential employers.

Current part-time and full-time employment opportunities are posted on the placement bulletin board located at A-TIPS campus.

Faculty & Administration

President/Director of Admissions and Records

Syed Arif Raza
M.S., University of Pheonix, Arizona
M.S., University of Karachi, Pakistan

Administrator

Faiz Syed
B.S., California State University, Long Beach

Faculty

Dr. Raza Rizvi
Ph.D., Wayne State University
M.S., Wayne State University

Syed Arif Raza
M.S., University of Pheonix, Arizona
M.S., University of Karachi, Pakistan

Junaid Akhter
B.S., NED University, Karachi, Pakistan

Nazneen Naqvi
M.IT., Cleary University
B.Comm., Karachi University, Pakistan

Asif Majeed
M.S., Wayne State University

Tauqeer Ahmed
M.S., Wayne State University

Sayyed Raza Mehdi
M.S., Karachi University, Pakistan
M.S., Wayne State University

Registrar/Placement Coordinator

Muqit Hasnie
B.S., Karachi University, Pakistan

Board of Trustees

Dr. Nafees Hasnie, M.D.
Wayne State University
Director/Vice President of Sofar Inc., Detroit, MI

Muqit Hasnie
B.S., Karachi University, Paksitan

Syed Arif Raza

M.S., University of Pheonix, Arizona
M.S., University of Karachi, Pakistan

Programs Offered

IT Freelance

Program Overview

This course is for individuals who are interested in enhancing any of their skills in any specific software, packages, programming language and web development (Short and customized courses)

Program Outline

Following are the courses that are offered in this program:

1. Cisco Certified Network Associate (CCNA)
2. CompTIA A+ Certification
3. MCSE 2003/MCSA 2003/ Security + Certification Track
4. Certified Wireless Network Associate (CWNA)
5. Microsoft Office Specialist (MOS)
6. HTML 4.01 Programming
7. JavaScript Programming
8. Java Programming
9. Active Server Pages (ASP)
10. Perl Programming and CGI Scripting
11. Advanced Perl Programming
12. Oracle Application Server 10g Administration
13. Oracle Database 10g: Introduction to SQL
14. Linux Fundamentals
15. Microsoft Certified Database Administrator
16. Microsoft Certified Solutions Developer

Cisco Certified Network Associate (CCNA)

Course Overview

This course is designed to help participants attain the skills necessary to install, configure and support Cisco devices in a small to medium sized organization or as part of a team in a large enterprise. This course will also help participants prepare for the CCNA certification examination. This course involves extensive hands-on work on Cisco routers, switches, and firewalls in a simulated network environment.

Duration

The total length of this course is 80 Hours

Course Objectives

- Learn the fundamentals of network theory and the TCP/IP Protocol Stack.
- Learn data networking fundamentals and network device functionality (includes configuring the network devices on LANs).
- Learn all of the most important aspects of the Internet work Operating System.
- Learn to interpret IOS displays.
- Learn how to implement, configure, and generally operate a Cisco switch.
- Learn all of the central network engineering disciplines, including network security, design and troubleshooting.
- Prepare the student for the CCNA Certification Exam (640-801).

Pre-requisites/Audience

The CCNA candidate must possess a basic understanding of network fundamentals including OSI model, TCP/IP Protocol, and basic network hardware familiarity. Suggested, but not required, certification levels are Net+ and/or an MCP.

Course Material/Text Books

The students will receive a Cisco Press book. Cisco Press courseware is the definitive source for Cisco learning. In addition, students will also have their own copy of A-TIPS' Sample Questions practice tests for the CCNA exam.

Vouchers And Testing

Each CCNA student will receive a complimentary test voucher. No additional payment is necessary for the voucher. The CCNA exam is delivered at the Training Center, which is an authorized VUE Testing Center. The exam is only 90 minutes in length. A test administrator will be available throughout the day, and in the evening, to register students for the test.

Course Outline

Introduction To Internetworking 8 Hours

- Internetworking Fundamentals
- Network evolution
- LAN Devices
- WAN Devices
- The OSI Model
- Using a Layered Approach
- The Upper Layers
- Application layer
- Presentation layer
- Session layer
- The Middle Layers
- Transport Layer
- Network Layer
- The Lower Layers
- Data Link Layer
- Logical Link Control Sublayer
- Media Access Control Sublayer
- Physical Layer
- Data Encapsulation
- LAN Technologies
- IEEE 802.3 and Ethernet
- FDDI
- IEEE 802.5 and Token Ring
- ATM

Relieving Network Congestion 8 Hours

- Through LAN Segmentation
- With Bridges
- With Routers
- With LAN Switches
- The Spanning Tree Protocol
- Using VLANs
- Full-Duplex Ethernet

TCP/IP Overview 8 Hours

- The DOD Reference Model
- Process/Application Layer
- Transport Layer
- Host-to-Host Layer
- Physical Layer
- IP Address Resolution

- ARP
- RARP

IP Addressing 8 Hours

- What is an IP Address
- Address Classes

- Addressing Guidelines
- Subnetting

Introduction to Cisco Routers 8 Hours

- The Router Hardware
- Internal Configuration Components
- The Startup Sequence
- The System Configuration Dialog
- The User Interface
- The Exec Command Interpreter
- User Mode
- Privileged Mode
- Logging In
- Manual Configuration
- Getting Help
- Editing Commands
- Start-up Commands
- Saving their Configuration
- Changing Passwords
- Entering a Banner
- Working with Router Interfaces

IP Routing 8 Hours

- The IP Routing Process
- Configuring Static Routes
- Using Default Routes

Dynamic Routing 8 Hours

- Routing vs. Routed Protocols
- Interior Routing Protocols
- Exterior Routing Protocols
- Configuring RIP
- Monitoring RIP
- Configuring IGRP
- Monitoring IGRP

Configuring IPX/SPX 8 Hours

- An Introduction to Novell IPX/SPX
- The Stack
- Client-Server
- Server-Server
- IPX Addressing
- IPX on Cisco Routers
- Enabling IPX Routing
- Configuring IPX
- Monitoring IPX

Using Access List to Manage Traffic 8 Hours

- What Are Access Lists?
- Configuring Standard IP Access Lists
- Configuring Extended IP Access Lists
- Monitoring IP Access Lists
- Configuring Standard IPX Access Lists
- Configuring Extended IPX Access Lists
- IPX SAP filters

Wide Area Networking 8 Hours

- What is a WAN?
- WAN Technologies
- POTS
- SDLC
- HDLC
- Dial on Demand (DDR)
- X.25
- Frame Relay
- Point to Point (PPP)
- ISDN

CompTIA A+ Certification**Course Overview**

The A+ certification is one of the leading Computer qualifications for PC Support technicians and engineers. This course combines the strength of the A+ curricula around the industry leading HP Deskpro brand to enable delegates to achieve two exam objectives in one course. There are many hands-on sessions to emphasize instructor-led content. Labs are structured for both novice and the more experienced. This is a combined five-day course that covers both hardware and software A+ exams and is aimed at support staff who are fast-tracking in to PC support environments in general.

Duration

The total length of this course is 80 Hours

Course Objectives

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

- Explore foundational information about computers.
- Describe tools of the trade.
- Maintain safe and healthy work habits while servicing computers.
- Identify the characteristics of a PC's internal system components.
- Identify the features of various bus architectures.
- Install or remove devices on standard ports.
- Identify the internal expansion capabilities of a PC.
- Install fixed disk storage systems.
- Identify the technical characteristics of common removable media disk drives.
- Identify and troubleshoot input and output peripheral devices.
- Install, configure, and work with various portable computing devices.
- Describe the basic components of a network.
- Perform preventative maintenance procedures
- List Windows and command-line tools.
- Manage applications.
- Install network components.
- Implement local security in Windows 2000/NT/XP.
- Manage file and print resources in Windows 2000/NT/XP.
- Manage file and print resources in Windows 9x.
- Manage disk resources in Windows 2000/NT/XP.
- Manage disk resources in Windows 9x.
- Connect to Internet and intranet resources.
- Implement virus protection.
- Prepare for disaster recovery.
- Recover from disaster.
- Install client operating systems.
- Automate client operating system installations.

Pre-requisites/Audience

End-user skills with Windows-based personal computers, including the ability to: Start up and shut down the computer. Log on to a computer or computer network. Run programs. Move, copy, delete, and rename files in Windows Explorer. Browse and search for information on the Internet. Basic knowledge of computing

concepts, including: The difference between hardware and software. The functions of software components such as the operating system, applications, and file system. The function of a computer network.

Course Material/Text Books

Each student will get the A-TIPS A+ certification Courseware. The Courseware clearly and concisely covers the latest CompTIA testing requirements for core hardware and operating system technologies, combining the two topics into one integrated, hands-on course. The student Courseware includes the following:

- Hardware and Operating Systems Manual
- Access to Knowledge online tutorials for students to continue their study outside of the classroom
- Premium computer tool Courseware
- Exam Vouchers
- Pocket Guide to Troubleshooting and Repair (if available)

Vouchers And Testing

Students will receive 2 complimentary test vouchers. No additional payment is necessary for the vouchers. Both exams are delivered at the Training Center, which is an authorized VUE Testing Center. Since the exams are adaptive, they are only 30 minutes in length. A test administrator will be available throughout the day, and in the evening, to register students for the tests.

Course Outline

Introduction to Computers 3 Hours

- A Brief History of Computers
- Desktop Computer System Components and Their Functions
- Software
- Numbering Systems

Tools of the Trade 3 Hours

- Hardware Tools
- Software Tools
- Troubleshooting Methodologies

Safety 3 Hours

- Basics of Electricity and Electronics
- Establish an ESD-free Work Area
- Observe General Safety Precautions
- Potential Hazards of Using PCs
- Fire Safety

System Components 3 Hours

- Power Supplies
- ROM BIOS
- Central Processing Units
- System Boards
- Memory

Bus Architectures 3 Hours

- What is a Bus?
- The 8-bit Bus
- The ISA Bus
- The EISA Bus
- The Micro Channel Architecture Bus
- The PCI Bus
- Video Circuitry Buses
- Troubleshooting Adapter Card Problems

Ports, Connectors, and Cables 3 Hours

- Serial Ports
- Parallel Ports
- PS/2 Ports
- USB Ports
- FireWire Ports

- Wireless Ports

Expansion Boards 3 Hours

- Drive Controllers
- Video Adapters
- Sound and Game Adapters
- Modem Adapters

Fixed Disk Storage Systems 3 Hours

- Fixed Disk Drives
- Installing IDE Drives
- Install or Remove Internal SCSI Drives
- Correct Hard Drive Problems
- RAID

Removable Storage Systems 3 Hours

- Floppy Disk Drives
- Optical Disc Drives
- Cartridge Disk Drives
- Backup Systems

Peripheral Devices 3 Hours

- Primary Input Devices
- Video Output Devices
- Printers
- Other Input/Output Devices

Portable Computing 3 Hours

- Portable Computing Devices
- Docking Solutions
- Portable Computing Device Drives
- PC Cards
- Mini-PCI Cards
- Portable Computing Device Memory
- Replace Internal Components
- Personal Digital Assistants

Networking 3 Hours

- Network Concepts
- Network Communications
- Network Architecture
- Internet Connections
- Networking Devices
- Troubleshoot Networks

Performing Preventative Maintenance 3 Hours

- Maintain the Hard Disk
- Perform Printer Maintenance
- Use a UPS
- Clean Peripheral Components
- Clean Internal System Components
- Decide When to Upgrade
- Dispose of Computer Equipment

Windows Tools 3 Hours

- Windows Graphical Tools
- Windows Command-line Tools

Managing Applications 3 Hours

- Install a Windows Application
- Configure Virtual Memory
- Install a Non-Windows Application

- Configure a Non-Windows Application
- Remove an Application

Installing Network Components 3 Hours

- Update a Network Card Driver
- Configure TCP/IP
- Troubleshoot TCP/IP Connectivity
- Install or Remove NetBEUI
- Install or Remove NWLink IPX/SPX
- Install a NetWare Client
- Configure a Network Connection in Windows 9x

Implementing Local Security in Windows 2000/NT/XP 3 Hours

- Create or Delete Local User Accounts
- Modify User Account Properties
- Set Workgroup or Domain Membership
- Configure File and Folder Security
- Encrypt Files and Folders

Managing File and Print Resources in Windows 2000/NT/XP 4 Hours

- Share Folders
- Connect to a Network Printer
- Capture a Printer Port
- Install a Local Printer
- Troubleshoot Printing
- Managing File and Print Resources in Windows 9x
- Set Workgroup or Domain Membership
- Configure the Security Level
- Share Folders
- Install a Printer
- Troubleshoot a Printer in Windows 9x
- Enable User Profiles

Managing Disk Resources in Windows 2000/NT/XP 3 Hours

- Create or Delete a Partition
- Convert a FAT Partition to NTFS
- Compress Files and Folders
- Defragment a Hard Disk in Windows 2000/XP

Managing Disk Resources in Windows 9x 3 Hours

- Create or Delete a Partition
- Compress a Hard Disk
- Convert a FAT Partition to FAT32
- Defragment a Hard Disk

Connecting to Internet and Intranet Resources 3 Hours

- Create a Dial-up Connection
- Create a VPN Connection
- Configure a Web Browser
- Configure an Email Client
- Troubleshoot Internet and Intranet Connections

Implementing Virus Protection 3 Hours

- Install Virus Protection Software
- Configure Virus Protection Software
- Create a Clean Boot Disk
- Manually Update Virus Definitions
- Remove a Virus

Preparing for Disaster Recovery 4 Hours

- Create a Boot Disk
- Create an Emergency Repair Disk

- Install the Recovery Console
- Back Up Data
- Back Up System State Data
- Back Up the Registry
- Prepare for an Automated System Recovery

Recovering from Disaster 3 Hours

- Troubleshoot an Application
- Troubleshoot Hard Disks
- Restore Data
- Restore the Registry
- Restore System State Data
- Recover Boot Sector Files
- Perform an Automated System Recovery

Installing Client Operating Systems 3 Hours

- Install a Windows Client Operating System
- Upgrade a Windows Client Operating System
- Troubleshoot Operating System Installations
- Add or Remove Operating System Components

Automating Client Operating System Installations 3 Hours

- Perform an Unattended Installation
- Create a Computer Image
- Install a Computer Image

MCSE 2003/MCSA 2003/Security+ Certification Track

Course Overview

This certification track will prepare the candidates to obtain the following industry certifications, highly desired by employers:

Microsoft Certified Systems Engineer: Microsoft Certified Systems Engineers (MCSEs) design and implement an infrastructure solution based on the Windows platform and Microsoft Servers software.

Microsoft Certified Systems Administrator: The Microsoft Certified Systems Administrator (MCSA) certification will advance candidates career by ensuring that they have the skills to successfully manage and troubleshoot system environments running on the Microsoft Windows operating system.

CompTIA Security+ Certification: The CompTIA Security+ certification tests for security knowledge mastery of an individual with two years on-the-job networking experience, with emphasis on security. The exam covers industry-wide topics, including communication security, infrastructure security, cryptography, access control, authentication, external attack and operational and organization security

Duration

The total length of this course is 200 Hours

Certification Track

Exam	Course
70-270	Configuring, Installing and Administrating Widows XP Professional
70-290	Maintaining and Managing Windows 2003 Environment
70-291	Maintaining, Managing and Implementing Windows 2003 Network Infrastructure
70-293	Maintaining and Planning Windows 2003 Network Infrastructure
70-294	Planning, Implementing and Maintaining a Windows 2003 Active Directory Infrastructure
70-297	Designing Windows 2003 Network Infrastructure and Active Directory

SYO-101	CompTIA Security+
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Configuring, Installing and Administrating Windows XP Professional (Exam 70-270)

Course Overview

This instructor-led course provides students with the knowledge and skills that are needed to manage Microsoft Windows XP Professional computers in a Microsoft Windows Server 2003 environment. Additional information for Windows 2000 is also included explaining how it differs from Windows XP Professional.

Duration

The total length of this course is 16 Hours

Course Objectives

- Plan and perform an installation of Windows XP Professional.
- Install and support hardware devices and drivers on computers running Windows XP Professional.
- Identify and resolve boot process issues on computers running Windows XP Professional.
- Configure desktop settings for computers running Windows XP.
- Configure security settings for Microsoft Internet Explorer and application compatibility for computers running Windows XP Professional.
- Configure computers to run Windows XP Professional in a Windows networking environment.
- Configure and support computers running Windows XP Professional for mobile computing.

Pre-requisites/Audience

This course is intended for individuals who are employed as or seeking employment as a systems administrator or systems engineer. Before attending this course, students must have CompTIA A+ Certification or CompTIA Network+ Certification or equivalent knowledge.

Course Material/Text Books

The students will receive both MCSE/MCSA Certification Courseware by Microsoft Press. Microsoft Press courseware is the definitive source for Microsoft learning. In addition, students will also have their own copy of A-TIPS' Sample Questions and Microsoft Certified practice tests for the MCSE/MCSA exam.

Vouchers And Testing

Each MCP student will receive a complimentary test voucher. No additional payment is necessary for the voucher. The MCP exam is delivered at the Training Center, which is an authorized VUE Testing Center. A test administrator will be available throughout the day, and in the evening, to register students for the test.

Course Outline

Installing Windows XP Professional 4 Hours

- Manually Installing Windows XP Professional
- Automating a Windows XP Professional Installation
- Transferring User Files and Settings to a New Computer
- Using an Image to Install Windows XP Professional

Adding Hardware to Microsoft Windows XP Clients 2 Hours

- Installing Hardware Devices
- Configuring Modems, Printers, and Monitors
- Troubleshooting Device Drivers
- Disabling and Uninstalling Hardware Devices

Resolving Boot Process Issues 2 Hours

- Understanding the Boot Process
- Using Advanced Boot Options
- Using the Recovery Console to Start a Computer
- Using the Boot.ini File to Change Startup Behavior

Configuring the Desktop Environment 2 Hours

- Configuring User Desktop Settings
- Customizing Menus and Folders

- Configuring System Settings
- Managing User Profiles
- Using Remote Assistance in Windows XP Professional

Configuring Microsoft Internet Explorer and Application Compatibility 2 Hours

- Configuring Security and Connection Settings for Internet Explorer
- Methods for Customizing and Deploying Internet Settings
- Configuring Applications for Microsoft Windows XP Professional
- Troubleshooting Applications

Configuring Microsoft Windows XP Professional to Operate in a Microsoft Network 2 Hours

- Configuring Microsoft Windows XP Professional for a Workgroup
- Configuring Local Security
- Configuring Network Options in a Workgroup
- Joining a Domain

Configuring Windows for Mobile Computing 2 Hours

- Configuring Hardware for Mobile Computing
- Power Management for Mobile Computing
- Making Files and Web Sites Available Off Line

Maintaining and Managing Windows 2003 Environment (Exam 70-290)

Course Overview

This course is designed to provide students with the knowledge and skills that are required to manage accounts and resources, maintain server resources, monitor server performance, and safeguard data in a Microsoft Windows Server™ 2003 environment.

This is the first course in the Systems Administrator and Systems Engineer tracks for Windows Server 2003 and serves as the entry point for other courses in the Windows Server 2003 curriculum.

Duration

The total length of this course is 32 Hours

Course Objectives

- Create and populate organizational units with user and computer accounts.
- Manage user and computer accounts.
- Create and manage groups.
- Manage access to resources.
- Implement printing.
- Manage printing.
- Manage access to objects in organizational units.
- Implement Group Policy.
- Manage the user and computer environment by using Group Policy.
- Audit accounts and resources.
- Prepare to administer server resources.
- Configure a server to monitor system performance.
- Monitor system performance.
- Manage device drivers by configuring device driver signing and restoring a device driver.
- Manage hard disks.
- Manage data storage.
- Manage disaster recovery.

Pre-requisites/Audience

This course is intended for individuals who are employed as or seeking employment as a systems administrator or systems engineer. Before attending this course, students must have CompTIA A+ Certification or CompTIA Network+ Certification or equivalent knowledge.

Course Material/Text Books

The students will receive both MCSE/MCSA Certification Courseware by Microsoft Press. Microsoft Press courseware is the definitive source for Microsoft learning. In addition, students will also have their own copy of A-TIPS' Sample Questions and Microsoft Certified practice tests for the MCSE/MCSA exam.

Vouchers And Testing

Each MCP student will receive a complimentary test voucher. No additional payment is necessary for the voucher. The MCP exam is delivered at the Training Center, which is an authorized VUE Testing Center. A test administrator will be available throughout the day, and in the evening, to register students for the test.

Course Outline

Introduction to Administering Accounts and Resources 2 Hours

- The Windows Server 2003 Family
- Logging on to Windows Server 2003
- Installing and Configuring Administrative Tools
- Creating User Accounts
- Creating Computer Accounts
- Creating an Organizational Unit

Managing User and Computer Accounts 2 Hours

- Modifying Users and Computer Account Properties
- Enabling and Unlocking User and Computer Accounts
- Creating a User Account Template
- Locating User and Computer Accounts in Active Directory
- Saving Queries
- Resetting User and Computer Accounts
- Moving Domain Objects

Managing Groups 2 Hours

- Creating Groups
- Managing Group Membership
- Strategies for Using Groups
- Modifying Groups
- Using Default Groups
- Best Practices for Managing Groups

Managing Access to Resources 2 Hours

- Overview of Managing Access to Resources
- Managing Access to Shared Folders
- Managing Access to Files and Folders Using NTFS Permissions
- Determining Effective Permissions
- Managing Access to Shared Files Using Offline Caching

Implementing Printing 1 Hour

- Multimedia: Introduction to Printing in the Windows Server 2003 Family
- Installing and Sharing Printers
- Managing Access to Printers Using Shared Printer Permissions
- Managing Printer Drivers
- Implementing Printer Locations

Managing Printing 1 Hour

- Changing the Location of the Print Spooler
- Setting Printer Priorities
- Scheduling Printer Availability
- Configuring a Printing Pool

Managing Access to Objects in Organizational Units 2 Hours

- Multimedia: The Role of the Organizational Unit
- Modifying Permissions for Active Directory Objects
- Delegating Control of Organizational Units

Implementing Group Policy 2 Hours

- Implementing Group Policy Objects
- Implementing Group Policy Objects on a Domain
- Managing the Deployment of Group Policy

Managing the User Environment by Using Group Policy 2 Hours

- Configuring Group Policy Settings
- Assigning Scripts with Group Policy
- Configuring Folder Redirection
- Determining Applied GPOs

Introduction to Security in Windows Server 2003 1 Hour

- Overview of Security in Windows Server 2003
- Using Security Templates to Secure Computers
- Testing Computer Security Policy
- Configuring Auditing
- Managing Security Logs

Preparing to Administer a Server 2 Hours

- Administering a Server
- Configuring Remote Desktop to Administer a Server
- Managing Remote Desktop Connections

Preparing to Monitor Server Performance 2 Hours

- Introduction to Monitoring Server Performance Performing Real-Time and Logged Monitoring
- Configuring and Managing Counter Logs
- Creating Trace Logs
- Configuring Alerts

Monitoring Server Performance 2 Hours

- Monitoring Server Memory
- Monitoring Processor Usage
- Monitoring Disks
- Monitoring Network Usage
- Guidelines for Using Counters and Thresholds
- Best Practices for Monitoring Server Performance

Maintaining Device Drivers 1 Hour

- Configuring Device Drivers Signing Options
- Using Device Driver Rollback

Managing Disks 2 Hours

- Preparing Disks
- Managing Disk Properties
- Managing Mounted Drives
- Converting Disks Creating Volumes
- Importing a Foreign Disk

Managing Data Storage 2 Hours

- Managing File Compression
- Configuring File Encryption
- Configuring EFS Recovery Agents
- Implementing Disk Quotas

Managing Disaster Recovery 2 Hours

- Preparing for Disaster Recovery
- Backing Up Data
- Scheduling Backup Jobs
- Restoring Data
- Recovering from Server Failure
- Selecting Disaster Recovery Methods

Maintaining Software by Using Microsoft Software Update Services 2 Hours

- Introduction to Software Update Services
- Installing and Configuring Software Update Services on Client Computers
- Installing and Configuring Software Update Services on Servers
- Managing a Software Update Services Infrastructure

Maintaining, Managing and Implementing Windows 2003 Network Infrastructure (Exam 70-291)

Course Overview

This instructor-led course provides students with the knowledge and skills to implement, manage, and maintain a Microsoft Windows Server™ 2003 network infrastructure. The course is intended for systems administrator and systems engineer candidates who are responsible for implementing, managing, and maintaining server networking technologies. These tasks include implementing routing; implementing, managing, and maintaining Dynamic Host Configuration Protocol (DHCP), Domain Name System (DNS), and Windows Internet Name Service (WINS); securing Internet Protocol (IP) traffic with Internet Protocol security (IPSec) and certificates; implementing a network access infrastructure by configuring the connections for remote access clients; and managing and monitoring network access.

Duration

The total length of this course is 32 Hours

Course Objectives

- Configure routing by using the Routing and Remote Access service.
- Allocate IP addressing by using DHCP.
- Manage and monitor DHCP.
- Resolve names.
- Resolve host names by using DNS.
- Manage and monitor DNS.
- Resolve network basic input/output system (NetBIOS) names by using WINS.
- Secure network traffic by using IPSec and certificates.
- Configure network access.
- Manage and monitor network access.

Pre-requisites/Audience

The target audience for this course includes individuals who are either employed by, or who are seeking employment as, a Systems Administrator. The entry criterion for this course includes individuals who are entry-level IT professionals, new to hands-on Windows server and network administration. Before attending this course, students must have CompTIA A+ Certification or CompTIA Network+ Certification or completed A-TIPS' Managing a Microsoft Windows Server 2003 Environment course or equivalent knowledge.

Course Material/Text Books

The students will receive both MCSE/MCSA Certification Courseware by Microsoft Press. Microsoft Press courseware is the definitive source for Microsoft learning. In addition, students will also have their own copy of A-TIPS' Sample Questions and Microsoft Certified practice tests for the MCSE/MCSA exam.

Vouchers And Testing

Each MCP student will receive a complimentary test voucher. No additional payment is necessary for the voucher. The MCP exam is delivered at the Training Center, which is an authorized VUE Testing Center. A test administrator will be available throughout the day, and in the evening, to register students for the test.

Course Outline

Reviewing the Suite of TCP/IP Protocols 2 Hours

- Overview of the OSI Model
- Overview of the TCP/IP Protocol Suite
- Viewing Frames Using Network Monitor

Assigning IP Addresses in a Multiple Subnet Network 2 Hours

- Assigning IP Addresses

- Creating a Subnet
- Creating Subnets Using VLSM
- Creating Subnets Using CIDR
- Using IP Routing Tables

Configuring a Client IP Address 2 Hours

- Configuring a Client to Use a Static IP Address
- Configuring a Host to Obtain an IP Address Automatically
- Using Alternate Configuration

Configuring a Client for Name Resolution 2 Hours

- Resolving Client Names
- Managing the Address Resolution Protocol (ARP) Cache
- Overview of NetBIOS
- Using Static Naming Methods
- Using Dynamic Naming Methods
- Summarizing the Name Resolution Process

Isolating Common Connectivity Issues 2 Hours

- Isolating Common Connectivity Issues
- Using Utilities and Tools to Isolate Connectivity Issues

Configuring Routing by Using Routing and Remote Access 2 Hours

- Installing and Configuring the Routing and Remote Access Service
- Configuring Packet Filters

Allocating IP Addressing by Using Dynamic Host Configuration Protocol 3 Hours

- Adding and Authorizing a DHCP Server Service
- Configuring a DHCP Scope
- Configuring a DHCP Reservation
- Configuring DHCP Options
- Configuring a DHCP Relay Agent

Managing and Monitoring Dynamic Host Configuration Protocol (DHCP) 2 Hours

- Overview of Managing and Monitoring DHCP
- Managing a DHCP Database
- Viewing DHCP Statistics
- Monitoring DHCP Server Performance by Using the DHCP Audit Log
- Monitoring DHCP Server Performance by Using the Performance Console

Resolving Names 2 Hours

- Configuring Names on a Client
- Configuring Host Name Resolution
- Configuring NetBIOS Name Resolution

Resolving Host Names by Using Domain Name System (DNS) 2 Hours

- Installing the DNS Server Service
- Configuring the Properties for the DNS Server Service
- Configuring the DNS Zones
- Configuring a DNS Client
- Configuring DNS Dynamic Updates
- Configuring DNS Zone Transfers
- Delegating Authority for Zones

Managing and Monitoring Domain Name System 3 Hours

- Configuring the Time to Live Interval
- Configuring Aging and Scavenging
- Integrating DNS and WINS
- Verifying that a Resource Record Exists by Using Nslookup, DNSCMD, and DNSLint
- Testing the DNS Server Configuration
- Monitoring DNS Server Performance by Using the Performance Console

- Monitoring DNS Server Performance by Using the DNS Logging

Resolving NetBIOS Names by Using Windows Internet Naming Service 2 Hours

- Installing and Configuring a WINS Server
- Configuring the WINS Server
- Managing Records in WINS
- Configuring WINS Replication
- Managing the WINS database

Securing Network Traffic by Using IPSec and Certificates 2 Hours

- Implementing IPSec
- Implementing IPSec with Certificates
- Monitoring IPSec

Configuring Network Access 2 Hours

- Introduction to a Network Access Infrastructure
- Configuring a VPN Connection
- Configuring a Dial-up Connection
- Configuring a Wireless Connection
- Controlling User Access to a Network
- Centralizing Network Access Authentication and Policy Management by Using IAS

Managing and Monitoring Network Access 2 Hours

- Managing the Network Access Services
- Configuring Logging on a Network Access Server
- Collecting and Monitoring Network Access Data

Maintaining and Planning Windows 2003 Network Infrastructure (Exam 70-293)

Course Overview

The goal of this course is to provide students with the knowledge and skills necessary to plan and maintain a Windows Server 2003 network infrastructure.

Duration

The total length of this course is 32 Hours

Course Objectives

Plan a TCP/IP physical and logical network.
 Plan and troubleshoot a routing strategy.
 Plan a Dynamic Host Configuration Protocol (DHCP) strategy.
 Optimize and troubleshoot DHCP.
 Plan a Domain Name System (DNS) strategy.
 Optimize and troubleshoot DNS.
 Plan and optimize Windows Internet Naming Service (WINS).
 Plan, optimize, and troubleshoot IPSec network access.
 Troubleshoot network access.

Pre-requisites/Audience

This course is appropriate for individuals who are employed or seeking a position as a systems engineer. This course is also appropriate for individuals who currently support a competitive platform who want to enhance their skills using Windows Server 2003 Active Directory. Before attending this course, students must have taken A-TIPS' Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure course, or have equivalent knowledge and skills.

Course Material/Text Books

The students will receive both MCSE/MCSA Certification Courseware by Microsoft Press. Microsoft Press courseware is the definitive source for Microsoft learning. In addition, students will also have their own copy of A-TIPS' Sample Questions and Microsoft Certified practice tests for the MCSE/MCSA exam.

Vouchers And Testing

Each MCP student will receive a complimentary test voucher. No additional payment is necessary for the voucher. The MCP exam is delivered at the Training Center, which is an authorized VUE Testing Center. A test administrator will be available throughout the day, and in the evening, to register students for the test.

Course Outline

Introducing Windows Server 2003 Network Infrastructure Planning, Tools, and Documentation

3 Hours

- Planning a Windows Server 2003 Network
- Preparing Development and Test Environment
- Changing the Environment
- Introducing the Network Design Document

Planning and Optimizing a TCP/IP Physical and Logical Network 3 Hours

- Reviewing TCP/IP
- Planning a Functional TCP/IP Solution
- Optimizing Network Performance

Planning and Troubleshooting Routing 3 Hours

- Reviewing Routing
- Selecting Intermediate Devices
- Planning an Internet Connectivity Strategy
- Planning Routing Communications
- Troubleshooting TCP/IP Routing

Planning a DHCP Strategy 2 Hours

- How DHCP Operates in an Enterprise Environment
- Planning a DHCP Strategy
- Securing a DHCP Strategy

Optimizing and Troubleshooting DHCP 3 Hours

- Determining the Need to Optimize DHCP Performance
- Optimizing DHCP
- Troubleshooting DHCP

Planning a DNS Strategy 3 Hours

- Planning a Namespace
- Planning Zones
- Planning Zone Replication and Delegation
- Planning a DNS Server

Optimizing and Troubleshooting DNS 3 Hours

- Optimizing the DNS Server
- Troubleshooting Host Name Resolution

Planning and Optimizing WINS 3 Hours

- Reviewing WINS
- Planning a WINS Solution
- Identifying WINS Optimization Requirements
- Optimizing WINS Traffic

Planning and Troubleshooting IPsec 3 Hours

- Reviewing IPsec
- Understanding the Default Policy Rules
- Planning an IPsec Deployment
- Troubleshooting IPsec Communications

Planning Network Access 3 Hours

- Reviewing Network Access
- Selecting Network Access Connection Methods
- Selecting a Remote Access Policy Strategy
- Selecting a Network Access Authentication Method

- Selecting a Network Access Strategy

Troubleshooting Network Access 3 Hours

- Network Access Troubleshooting Resources
- Troubleshooting LAN Authentication
- Troubleshooting Remote Access

Planning, Implementing and Maintaining a Windows 2003 Active Directory Infrastructure (Exam 70-294)

Course Overview

This instructor-led course provides students with the knowledge and skills to successfully plan, implement, and troubleshoot a Microsoft Windows Server 2003 Active Directory service infrastructure. The course focuses on a Windows Server 2003 directory service environment, including forest and domain structure, Domain Name System (DNS), site topology and replication, organizational unit structure and delegation of administration, Group Policy, and user, group, and computer account strategies.

Duration

The total length of this course is 24 Hours

Course Objectives

- Describe the logical and physical components of Active Directory.
- Create and configure a forest and domain structure by using an Active Directory infrastructure design.
- Plan and implement an organizational unit structure.
- Plan and implement Active Directory user, group, and computer accounts.
- Plan and implement a Group Policy strategy to centrally manage users and computers in an enterprise.
- Deploy, manage, and troubleshoot software that is deployed using Group Policy.
- Implement sites to manage and monitor Active Directory replication.
- Plan and implement the placement of domain controllers, global catalog servers, and DNS servers that are integrated with Active Directory.
- Plan and manage operations masters.
- Back up, restore, and maintain Active Directory.
- Plan and implement an Active Directory infrastructure that is based on a directory service design that an enterprise architect provides.

Pre-requisites/Audience

This course is appropriate for individuals who are employed or seeking a position as a systems engineer. This course is also appropriate for individuals who currently support a competitive platform who want to enhance their skills using Windows Server 2003 Active Directory. Before attending this course, students must have completed A-TIPS' Planning and Maintaining a Windows Server 2003 Network Infrastructure course, or have the equivalent knowledge and skills.

Course Material/Text Books

The students will receive both MCSE/MCSA Certification Courseware by Microsoft Press. Microsoft Press courseware is the definitive source for Microsoft learning. In addition, students will also have their own copy of A-TIPS' Sample Questions and Microsoft Certified practice tests for the MCSE/MCSA exam.

Vouchers And Testing

Each MCP student will receive a complimentary test voucher. No additional payment is necessary for the voucher. The MCP exam is delivered at the Training Center, which is an authorized VUE Testing Center. A test administrator will be available throughout the day, and in the evening, to register students for the test.

Course Outline

Introduction to Active Directory Infrastructure 2 Hours

- The Architecture of Active Directory
- How Active Directory Works
- Examining Active Directory

- The Active Directory Design, Planning, and Implementation Processes

Implementing an Active Directory Forest and Domain Structure 2 Hours

- Creating a Forest and Domain Structure
- Examining and Configuring Active Directory Integrated DNS
- Raising Forest and Domain Functional Levels
- Creating Trust Relationships
- Securing Trusts Using SID Filtering

Implementing an Organizational Unit Structure 3 Hours

- Managing Organizational Units
- Delegating Administrative Control for Organizational Units
- Planning an Organizational Unit Strategy

Implementing User, Group, and Computer Accounts 2 Hours

- Introduction to Accounts
- Creating and Managing Multiple Accounts
- Implementing User Principal Name Suffixes
- Moving Objects in Active Directory
- Planning an Account Strategy
- Planning an Active Directory Audit Strategy

Implementing Group Policy 2 Hours

- Creating and Configuring Group Policy objects (GPOs)
- Configuring When Group Policy Is Applied
- Managing GPOs
- Verifying and Troubleshooting Group Policy
- Delegating Administrative Control of Group Policy
- Planning a Group Policy Strategy for the Enterprise

Deploying and Managing Software by Using Group Policy 3 Hours

- Introduction to Managing Software Deployment
- Deploying Software
- Configuring Software Deployment
- Maintaining Deployed Software
- Troubleshooting Software Deployment
- Planning a Software Deployment Strategy

Implementing Sites to Manage Active Directory Replication 2 Hours

- Introduction to Active Directory Replication
- Creating and Configuring Sites
- Managing Site Topology
- Troubleshooting Replication Failures
- Planning a Site

Implementing Placement of Domain Controllers 2 Hours

- Implementing the Global Catalog in Active Directory
- Determining the Placement of Domain Controllers in Active Directory
- Planning the Placement of Domain Controllers

Managing Operations Masters 2 Hours

- Introduction to Operation Master Roles
- Transferring and Seizing Operations Master Roles
- Planning the Placement of Operations Masters

Maintaining Active Directory Availability 2 Hours

- Introduction to Maintaining Active Directory
- Moving and Defragmenting the Active Directory Database
- Backing Up Active Directory
- Restoring Active Directory
- Planning for Monitoring Active Directory

Planning and Implementing an Active Directory Infrastructure 2 Hours

- Creating the Active Directory Implementation Plan for Tailspin Toys
- Implementing the Active Directory Infrastructure for Tailspin Toys

Designing Windows 2003 Network Infrastructure and Active Directory (Exam 70-297)

Course Overview

This instructor-led course provides students with the knowledge and skills to design a Microsoft Active Directory service and network infrastructure for a Microsoft Windows Server 2003 environment. The course is intended for systems engineers who are responsible for designing directory service and/or network infrastructures.

Duration

The total length of this course is 32 Hours

Course Objectives

- Describe the process of designing an Active Directory infrastructure and a network infrastructure that supports Active Directory.
- Design a forest and domain infrastructure that meets the needs of an organization.
- Design a site infrastructure that meets the needs of an organization.
- Design a Group Policy structure that meets the needs of an organization.
- Design an administrative structure that meets the needs of an organization.
- Design a physical network structure that supports Active Directory and meets the needs of an organization.
- Design a Dynamic Host Configuration Protocol (DHCP) structure that supports Active Directory and meets the needs of an organization.
- Create a design for network connectivity that supports Active Directory and meets the needs of an organization.
- Design a name resolution strategy that supports Active Directory and meets the needs of an organization.
- Design a network access infrastructure that supports Active Directory and meets the needs of an organization.

Pre-requisites/Audience

This course is appropriate for individuals who are employed or seeking a position as a systems engineer. Before attending this course, students must have taken A-TIPS' Planning and Maintaining a Windows Server 2003 Network Infrastructure and Planning, Implementing, and Maintaining a Microsoft Windows Server 2003 Active Directory Infrastructure courses , or have the equivalent knowledge and skills

Course Material/Text Books

The students will receive both MCSE/MCSA Certification Courseware by Microsoft Press. Microsoft Press courseware is the definitive source for Microsoft learning. In addition, students will also have their own copy of A-TIPS' Sample Questions and Microsoft Certified practice tests for the MCSE/MCSA exam.

Vouchers And Testing

Each MCP student will receive a complimentary test voucher. No additional payment is necessary for the voucher. The MCP exam is delivered at the Training Center, which is an authorized VUE Testing Center. A test administrator will be available throughout the day, and in the evening, to register students for the test.

Course Outline

Introduction to Designing an Active Directory and Network Infrastructure 2 Hours

- Explain basic design principles.
- Describe the process of and the tasks involved in designing an Active Directory infrastructure.

Designing a Forest and Domain Infrastructure 3 Hours

- Gather and analyze the information that students need to design a forest and domain infrastructure.
- Create a logical forest design.
- Create a domain design.
- Design a DNS namespace strategy for forests and domains.

- Create a trust strategy for forests.
- Determine a migration plan for the existing infrastructure.
- Design a schema management policy.

Designing a Site Infrastructure 4 Hours

- Determine the information needed to design a site infrastructure.
- Create a site design.
- Modify the site design for replication.
- Determine the placement of domain controllers in the site design.
- Determine the placement of global catalog servers in the site design.
- Determine the placement of single operations masters in the site design.

Designing the Administrative Structure 4 Hours

- Determine the information needed to design an administrative structure.
- Design a network administration model. Design an organizational unit structure.
- Design an account strategy.

Designing for Group Policy 4 Hours

- Determine the information needed to design for Group Policy.
- Design a Group Policy structure.
- Create an organization unit (OU) structure for Group Policy.
- Create a Group Policy management design.

Designing the Physical Network 4 Hours

- Explain the preparation necessary to design a network infrastructure.
- Create an IP addressing scheme.
- Design a DHCP infrastructure.
- Design a change management structure for networking.

Designing for Network Connectivity 4 Hours

- Determine the information that students need to design for network connectivity.
- Evaluate connection types.
- Design a connectivity infrastructure.
- Create a design for Internet connectivity.

Designing a Name Resolution Strategy 3 Hours

- Determine the information needed to design a name-resolution strategy.
- Design a strategy for interoperability with Active Directory, BIND, WINS, and DHCP.
- Design a WINS replication strategy.
- Design a name resolution strategy for clients.

Designing the Network Access Infrastructure 4 Hours

- Gather data for network access design.
- Design network access security.
- Design remote access methods.
- Design a remote access infrastructure.
- Design a wireless access infrastructure.

CompTIA Security+ Certification (Exam SY0-201)

Course Overview

The CompTIA Security+ certification tests for security knowledge mastery of an individual with two years on-the-job networking experience, with emphasis on security. The exam covers industry-wide topics, including communication security, infrastructure security, cryptography, access control, authentication, external attack and operational and organization security

Duration

The total length of this course is 32 Hours

Course Objectives

- Identify and help mitigate security risks—essential concepts

- Know and apply the basic principles of cryptography, keys, and certificates
- Monitor and help secure vulnerabilities in TCP/IP and network infrastructure
- Help protect e-mail, RAS, VPNs, wireless services, and other online communications
- Configure user and group privileges, access control, and authentication
- Implement security baselines, system updates, and intrusion detection
- Create an operational security plan—from physical security to business continuity
- Build an organizational security program—documentation, risk assessment, user education

Pre-requisites/Audience

Students will need this course if their job responsibilities include securing network services, network devices, and network traffic. It is also the main course students will take to prepare for the CompTIA Security+ examination. Before attending this course, students must have CompTIA A+ Certification or CompTIA Network+ Certification or equivalent knowledge.

Course Material/Text Books

The students will receive an A-TIPS CompTIA Security+ Courseware which includes a durable nylon backpack, Security+ manual and a Mike Meyer's Security+ Certification Passport. In addition, students will also have their own copy of A-TIPS' Sample Questions practice tests for the CompTIA Security+ exam.

Vouchers And Testing

Each Security+ student will receive a complimentary test voucher. No additional payment is necessary for the voucher. The CompTIA Security+ exam is delivered at the Training Center, which is an authorized VUE Testing Center. A test administrator will be available throughout the day, and in the evening, to register students for the test.

Course Outline

Identify Security Threats 4 Hours

- Identify Social Engineering Attacks
- Classify Software Attacks
- Identify Network Attacks

Harden Internal Systems and Services 4 Hours

- Harden Base Operating Systems
- Harden Directory Services
- Harden DHCP Servers
- Harden Network File and Print Servers

Harden Internetwork Devices and Services 4 Hours

- Harden Internetwork Connection Devices
- Harden DNS and BIND Servers
- Harden Web Servers
- Harden FTP Servers
- Harden Network News Transport Protocol (NNTP) Servers
- Harden Email Servers
- Harden Conferencing and Messaging Server

Secure Network Communications 4 Hours

- Secure Network Traffic Using IP Security (IPSec)
- Secure Wireless Traffic
- Secure Client Internet Access
- Secure the Remote Access Channel

Manage Public Key Infrastructure (PKI) 4 Hours

- Install a Certificate Authority (CA) Hierarchy
- Harden a Certificate Authority
- Back Up Certificate Authorities
- Restore a Certificate Authorities

Manage Certificates 4 Hours

- Enroll Certificates for Entities
- Secure Network Traffic Using Certificates

- Renew Certificates
- Revoke Certificates
- Back Up Certificates and Private Keys
- Restore Certificates and Private Keys

Enforce Organizational Security Policy 4 Hours

- Enforce Corporate Security Policy Compliance
- Enforce Legal Compliance
- Enforce Physical Security Compliance
- Educate Users

Monitor the Security Infrastructure 4 Hours

- Scan for Vulnerabilities
- Monitor for Intruders
- Set Up a Honeypot
- Respond to Security Incidents

Certified Wireless Network Associate (CWNA)

Course Overview

The Wireless LAN Administration course provides the networking professional a complete foundation of knowledge for entering into or advancing in the wireless networking industry. From basic RF theory to link budget math, including topics from troubleshooting to performing a site survey, this course delivers hands on training that will benefit the novice as well as the experienced network professional.

Duration

The total length of this course is 40 Hours

Course Objectives

- Understand and apply the essential concepts of Radio Frequency (RF) technology, including RF planning, RF-related calculations and spread spectrum technologies.
- Understand the fundamental operation of wireless LANs, for effective WLAN problem analysis and troubleshooting.
- Describe the rules governing wireless LANs, to comply with local radio regulations for setup and maintenance of WLANs.
- Correctly install, configure and support wireless NICs, access points, wireless bridges, workgroup bridges, wireless gateways and WLAN antennas from Cisco Systems, Proxim Inc, Orinoco, Colubris Networks and more.
- Analyse and troubleshoot WLAN problems in-depth, including RF coverage, multipath, hidden nodes and interference problems
- Work with sophisticated WLAN diagnostic tools such as AirMagnet and WildPackets AiroPeek NX.
- Perform a site survey for the installation of WLANs.
- Understand the insecurities in IEEE 802.11 WLANs.
- Identify the attacks that can occur from network hackers.
- Secure the transmission of data over a wireless LAN using WEP and Wi-Fi Protected Access (WPA).
- Secure wireless LANs using Cisco LEAP, TKIP and MIC.
- Secure wireless LANs using generic 802.1x/EAP on access points from a range of manufacturers.
- Secure wireless LANs using VPN tunnelling and encryption techniques including PPTP and IPSec.
- Conduct essential security surveys to assess the presence and vulnerabilities of WLANs.

Pre-requisites/Audience

This course targets both novice and experienced networking professionals who wish to gain a solid understanding of wireless networking to complement their knowledge of traditional wired networking. It is recommended that all students have at least a basic knowledge of networking (as exhibited in Network+, CCNA or MCP) prior to enrolling in the course.

Course Material/Text Books

The students will receive a CWNA Official Study Courseware by McGraw Hill. Each Courseware includes hands-on practice labs, and sample test questions.

Vouchers And Testing

Each CWNA student will receive a complimentary test voucher. No additional payment is necessary for the voucher. The CWNA exam is delivered at our Training Center, which is an authorized VUE Testing Center. The exam is only 90 minutes in length. A test administrator will be available throughout the day, and in the evening, to register students for the test.

Course Outline

Radio Frequency (RF) Fundamentals 4 Hours

- RF behavior Principles of antennas
- Following power output regulations
- RF math calculations

Spread Spectrum Technologies 4 Hours

- Uses of Spread Spectrum
- Frequency Hopping
- Direct Sequencing
- Comparing DSSS to FHSS
- Co-location and throughput analysis

Hardware Installation, Configuration, and Management 4 Hours

- Access points
- Wireless bridges
- Wireless workgroup bridges
- Client devices
- Residential gateways
- Enterprise gateways

Antennas and Accessories 4 Hours

- Omni-directional
- Semi-directional
- Directional
- Determining coverage areas
- Proper mounting and safety
- Performing outdoor/indoor installations
- Power over Ethernet
- Cables and connector usage requirements

Organizations and Standards 4 Hours

- FCC rules
- Frequency ranges and channels
- IEEE 802.11 family of standards
- Wireless LAN organizations
- HomeRF
- Bluetooth
- Infrared

802.11 Network Architecture 4 Hours

- Joining a wireless LAN
- Authentication and association
- Basic Service Set
- Extended Service Set
- Independent Basic Service Set
- Roaming in a wireless LAN
- Beacons and Probe Frames
- Power management features

Physical and MAC Layers 4 Hours

- Differences between wireless and Ethernet frames
- Collision handling and the use of RTS/CTS
- Throughput and dynamic rate selection
- Analysis of DCF/PCF
- Interframe spacing

- Effects of packet fragmentation

Wireless LAN Security 4 Hours

- Analysis of 802.11 security including WEP
- Available security solutions
- Types of network attacks
- Protecting the network from attacks
- Corporate security policies
- Security recommendations

Site Surveying 4 Hours

- Defining business requirements
- Facility analysis
- Interviewing network management and users Identifying bandwidth requirements
- Determining contours of RF coverage
- Documenting installation problems
- Locating interference
- Reporting methodology and procedures

Troubleshooting Wireless LANs 4 Hours

- Multipath
- Hidden node
- Near/Far
- Identifying and resolving interference problems
- Maximizing system throughput
- Maximizing Co-location throughput
- Channel reuse for roaming
- Range considerations

Microsoft Office Specialist (MOS)

Course Overview

The Microsoft Office Specialist (MOUS) or MOUS certification course is a comprehensive, performance-based program that teaches students to be proficient using the popular suite of Microsoft Office 2003 programs including Word, Excel, Power Point, Outlook, and Access. The MOUS program provides computer program literacy, measures proficiency, and identifies opportunities for skills enhancement.

Duration

The total length of this course is 120 Hours

Certification Track

MOS 2003 Exam Track	
Exam	Courses
Master Certification	
Required	
Word 2003	Word 2003 Level I, II and III
Excel 2003	Excel 2003 Level I, II and III
PowerPoint 2003	PowerPoint 2003 Level I and II
Elective	
Access 2003	Access 2003 Level I, II and III
Or	
Outlook 2003	Outlook 2003 Level I, II and III
Expert Certification	
Word 2003	Word 2003 Level I, II and III
Excel 2003	Excel 2003 Level I, II and III
Specialist Certification	
Word 2003	Word 2003 Level I, II and III
Excel 2003	Excel 2003 Level I, II and III

PowerPoint 2003	PowerPoint 2003 Level I and II
Access 2003	Access 2003 Level I, II and III
Outlook 2003	Outlook 2003 Level I, II and III

Access 2003 Level I

Course Overview

In this course, students will be introduced to the concept of the relational database and the Microsoft Office Access 2003 relational database application, and information management tools. Also, students will learn how to design and create a new Access database.

Duration

The total length of this course is 16 Hours

Course Objectives

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

- Examine the Microsoft Office Access 2003 database application.
- Manage the data in a database.
- Examine existing table relationships.
- Query the database.
- Design simple forms.
- Create and modify Access reports.
- Follow the steps required to properly design a simple database.
- Create a new database with related tables.
- Control data entry by modifying the design of a table to streamline data entry and maintain data integrity.
- Find and retrieve desired data by using filters and joins between tables and within a single table.
- Create flexible queries to display specified records; allow for user-determined query criteria; and add, update, and delete data with queries.
- Enhance the appearance, data entry, and data access capabilities of their forms.
- Customize reports to better organize the displayed information and produce specific print layouts such as mailing labels.
- Use Access data in other applications, including Microsoft Word and Excel.

Pre-requisites/Audience

This course is designed for students who wish to learn the basic and intermediate-level operations of the Microsoft Access Database program to perform their day to day responsibilities, and to understand the advantages that using a relational database program can bring to their business processes. The first half of this class addresses job responsibilities that include working with tables to create and maintain records, locate records, and produce reports based on the information in the database. It also provides the fundamental knowledge and techniques needed to advance to more technical Access responsibilities, such as creating and maintaining new databases and using programming techniques that enhance Access applications. The second half addresses job responsibilities that include creating new databases, tables, and relationships, as well as working with and revising intermediate-level queries, forms, and reports. It also introduces integrating Access data with other Microsoft applications.

Course Material/Text Books

The students will receive the MOS Certification Courseware by Microsoft Press. Microsoft Press courseware is the definitive source for Microsoft learning.

Course Outline

An Overview of Microsoft Access 2 Hours

- Relational Databases
- The Access Environment
- The Database Environment
- Examine an Access Table

Managing Data 1 Hour

- Examine an Access Form

- Add and Delete Records
- Sort Records
- Display Record Sets
- Update Records
- Run a Report

Establishing Table Relationships 1 Hour

- Identify Table Relationships
- Identify Primary and Foreign Keys in the Relationships Window
- Working with Subdatasheets

Querying the Database 1 Hour

- The Select Query
- Add Criteria to a Query
- Add a Calculated Field to a Query
- Perform a Calculation on a Record Grouping

Designing Forms 1 Hour

- Form Design Guidelines
- Create AutoForms
- Create a Form Using the Form Wizard
- Modify the Design of a Form

Producing Reports 1 Hour

- Create an AutoReport
- Create a Report by Using the Wizard
- Examine a Report in Design View
- Add a Calculated Field to a Report
- Modify the Format Properties of a Control
- AutoFormat a Report
- Adjust the Width of a Report

Planning a Database 2 Hours

- Design a Relational Database
- Identify Database Purpose
- Review Existing Data
- Determine Fields
- Group Fields into Tables
- Normalize the Data
- Designate Primary and Foreign Keys

Building the Structure of a Database 1 Hour

- Create a New Database
- Create a Table Using a Wizard
- Create Tables in Design View
- Create Relationships between Tables

Controlling Data Entry 1 Hour

- Restrict Data Entry with Field Properties
- Create an Input Mask
- Create a Lookup Field

Finding and Joining Data 1 Hour

- Find Data with Filters
- Create Query Joins
- Join Unrelated Tables
- Relate Data Within a Table

Creating Flexible Queries 1 Hour

- Set Select Query Properties
- Create Parameter Queries

- Create Action Queries

Improving Their Forms 1 Hour

- Enhance the Appearance of a Form
- Restrict Data Entry in Forms
- Add Command Buttons
- Create a Subform

Customizing Their Reports 1 Hour

- Organize Report Information
- Set Report Control Properties
- Control Report Pagination
- Summarize Information
- Add a Subreport to an Existing Report
- Create Mailing Labels

Expanding the Reach of Their Data 1 Hour

- Publish Access Data as a Word Document
- Analyze Access Data in Excel
- Export Data to a Text File
- Merge Access Data with a Word Document

Access 2003 Level II

Course Overview

In this course, student will extend their knowledge into some of the more specialized and advanced capabilities.

Duration

The total length of this course is 8 Hours

Course Objectives

- Restructure an existing set of data to improve the design of a database.
- Use a variety of techniques to summarize and present data with queries.
- Create and revise basic Access macros.
- Create macros that improve data entry efficiency and integrity.
- Improve the effectiveness of data entry in forms.
- Improve the effectiveness of data displayed in reports.
- Maintain an Access database by using various utility tools.

Pre-requisites/Audience

Access 2003 Level II is designed for the student who wishes to learn intermediate and advanced operations of the Microsoft Access Database program. The Level III course is for the individual whose job responsibilities include working with heavily related tables; creating advanced queries, forms, and reports; writing macros to automate common tasks; and performing general database maintenance. It is also designed as one in a series of courses for students pursuing the Microsoft MOS Certification for Access 2003, and it is a prerequisite to taking more advanced courses in Access 2003. Before attending this course, students must have completed A-TIPS' Access Level I or have equivalent knowledge.

Course Material/Text Books

The students will receive the MOS Certification Courseware by Microsoft Press. Microsoft Press courseware is the definitive source for Microsoft learning.

Course Outline

Structuring Existing Data 1 Hour

- Import Data
- Analyze Tables
- Create a Junction Table
- Improve Table Structure

Writing Advanced Queries 2 Hours

- Create Unmatched and Duplicates Queries
- Group and Summarize Records Using the Criteria Field
- Summarize Data with a Crosstab Query
- Create a PivotTable and a PivotChart
- Display a Graphical Summary on a Form

Simplifying Tasks with Macros 1 Hour

- Create a Macro
- Attach a Macro to a Command Button
- Restrict Records Using a Where Condition

Adding Interaction and Automation with Macros 1 Hour

- Require Data Entry with a Macro
- Display a Message Box with a Macro
- Automate Data Entry

Making Forms more Effective 1 Hour

- Change the Display of Data Conditionally
- Display a Calendar on a Form
- Organize Information with Tab Pages

Making Reports More Effective 1 Hour

- Cancel Printing of a Blank Report
- Include a Chart in a Report
- Arrange Data in Columns
- Create a Report Snapshot

Maintaining an Access Database 1 Hour

- Link Tables to External Data Sources
- Back Up a Database
- Compact and Repair a Database
- Protect a Database with a Password
- Determine Object Dependency
- Document a Database
- Analyze the Performance of a Database

Access 2003 Level III

Course Overview

In this course, students will learn remote database management, how to exchange data with XML and other type applications, and how to automate their business processes by using VBA code.

Duration

The total length of this course is 8 Hours

Course Objectives

- Develop a data access page.
- Develop a data access page, a PivotTable, and a PivotChart.
- Import XML data and export Access data.
- Use VBA to automate a business process.
- Create and modify a database switchboard, and set and modify their startup options.
- Distribute a database and add security features to it.

Pre-requisites/Audience

Access 2003 Level III is for students who have a thorough understanding of the basic and advanced user features of the Access program, and are interested in learning introductory level administrator skillsets. The course is also for the student that may be working in a web-based environment and may need to adapt Access applications to the environment. It is also designed for students pursuing the Microsoft MOS Expert Level Certification for Access 2003. Before attending this course, students must have completed A-TIPS' Access Level II or have equivalent knowledge.

Course Material/Text Books

The students will receive the MOS Certification Courseware by Microsoft Press. Microsoft Press courseware is the definitive source for Microsoft learning.

Course Outline

Making Their Data Available on the Web 1 Hour

- Create a Data Access Page by Using the Wizard
- Improve the Presentation of the Data Access Page
- Viewing Data Access Pages with the Browser
- Edit Data Using the Data Access Page
- Group Records in the Data Access Page

Developing a Data Access Page in Design View 2 Hours

- Create a Data Access Page in Design View
- Incorporate a ComboBox in the Data Access Page
- Test the New Record Function of the Data Access Page
- Develop a PivotTable with the Office PivotTable Tool
- Develop a PivotChart

Integrating Access into Their Business 1 Hour

- Import XML Data into an Access Database
- Export Access Data to XML Format
- Share Data with Other Office Applications

Automating a Business Process with VBA 1 Hour

- Create a Standard Module
- Develop Code
- Call a Procedure from a Form
- Run the Procedure

Creating a Switchboard and Setting the Startup Options 1 Hour

- Create a Database Switchboard
- Modify a Database Switchboard
- Set the Startup Options
- Modify the Startup Options

Distributing and Securing the Database 2 Hours

- Split a Database
- Implement Security
- Set Passwords
- Encode and Decode a Database
- Convert an Access Database to an MDE File

Excel 2003 Level I

Course Overview

In this course, students will use Microsoft® Office Excel 2003 to manage, edit, and print data.

Duration

The total length of this course is 8 Hours

Course Objectives

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

- Create a basic worksheet.
- Modify a worksheet.
- Perform calculations.
- Format a worksheet.
- Develop a workbook.
- Print the contents of a workbook.
- Customize the layout of the Excel window.

Pre-requisites/Audience

This course is designed for persons preparing for certification as a Microsoft Office Specialist in Excel, who already have knowledge of the Microsoft Office Windows 98 (or above) operating system, and who desire to gain the skills necessary to create, edit, format, and print basic Microsoft Office Excel 2003 worksheets. Before attending this course, students must have some knowledge of Windows Operating Systems.

Course Material/Text Books

The students will receive the MOS Certification Courseware by Microsoft Press. Microsoft Press courseware is the definitive source for Microsoft learning.

Course Outline**Getting Started with Excel 1 Hour**

- An Overview of Excel
- Navigate in Excel
- Select Data
- Enter Data
- Save a Workbook
- Obtain Help

Modifying a Worksheet 1 Hour

- Move and Copy Data Between Cells
- Fill Cells with Series of Data
- Edit Cell Data
- Insert and Delete Cells, Columns, and Rows
- Find, Replace, and Go To Cell Data
- Spell Check a Worksheet

Performing Calculations 1 Hour

- Create Basic Formulas
- Calculate with Functions
- Copy Formulas and Functions
- Create an Absolute Reference

Formatting a Worksheet 2 Hours

- Change Font Size and Type
- Add Borders and Color to Cells
- Change Column Width and Row Height
- Merge Cells
- Apply Number Formats
- Create a Custom Number Format
- Align Cell Contents
- Find and Replace Formats
- Apply an AutoFormat
- Apply Styles

Developing a Workbook 1 Hour

- Format Worksheet Tabs
- Reposition Worksheets in a Workbook
- Insert and Delete Worksheets
- Copy and Paste Worksheets
- Copy a Workbook

Printing Workbook Contents 1 Hour

- Set a Print Title
- Create a Header and a Footer
- Set Page Margins
- Change Page Orientation
- Insert and Remove Page Breaks
- Print a Range

Customizing Layout 1 Hour

- Split a Worksheet
- Arrange Worksheets
- Freeze and Unfreeze Rows and Columns
- Hide and Unhide Worksheets

Excel 2003 Level II

Course Overview

In this course, students will use Microsoft Office Excel 2003 to streamline and enhance their spreadsheets with templates, charts, graphics, and formulas.

Duration

The total length of this course is 8 Hours

Course Objectives

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

- Create and apply templates.
- Create and modify charts.
- Work with graphic objects.
- Calculate with advanced formulas.
- Sort and filter data.
- Use Excel with the Web.

Pre-requisites/Audience

The target students for this course are students who desire to gain the skills necessary to create templates, sort and filter data, import and export data, analyze data, and work with Excel on the Web. In addition, this course helps prepare students who desire to prepare for the Microsoft Office Specialist exam in Excel or Module 2 and who already have knowledge of the basics of Excel, including how to create, edit, format, and print basic worksheets. Before attending this course, students must have taken A-TIPS' Excel 2003 Level I or have equivalent knowledge.

Course Material/Text Books

The students will receive the MOS Certification Courseware by Microsoft Press. Microsoft Press courseware is the definitive source for Microsoft learning.

Course Outline

Creating and Applying Templates 1 Hour

- Create a Workbook from a Template
- Create a Custom Template
- Working with Comments
- Create a Hyperlink
- Use Web-based Research Tools

Creating and Modifying Charts 1 Hour

- Create a Chart
- Format Chart Items
- Change the Chart Type
- Create a Diagram

Working with Graphic Objects 2 Hours

- Insert Graphics
- Create AutoShapes
- Format Graphic Objects
- Change the Order of Graphic Objects
- Group Graphic Objects
- Move, Copy, and Resize Graphic Objects

Calculating with Advanced Formulas 2 Hours

- Create and Apply a Name for a Range of Cells
- Calculate Across Worksheets
- Calculate with Date and Time Functions
- Calculate with Financial Functions

- Calculate with Statistical Functions
- Calculate with Lookup and Reference Functions
- Calculate with Logical Functions

Sorting and Filtering Data 1 Hour

- Sort Data Lists
- Filter Data Lists
- Create and Apply Advanced Filters
- Calculate with Database Functions
- Add Subtotals to a Worksheet

Using Excel with the Web 1 Hour

- Export Excel Data
- Publish a Worksheet to the Web
- Import Data from the Web
- Create a Web Query

Excel 2003 Level III

Course Overview

In this course, students will learn how to automate common tasks, apply advanced analysis techniques to more complex data sets, collaborate on worksheets with others, and share Excel data with other applications.

Duration

The total length of this course is 8 Hours

Course Objectives

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

- Customize workbooks.
- Collaborate with others using workbooks.
- Audit worksheets.
- Analyze data.
- Work with multiple workbooks.
- Import and export data.
- Structure workbooks with XML.

Pre-requisites/Audience

This course was designed for students desiring to gain the skills necessary to create macros, collaborate with others, audit and analyze worksheet data, create PivotTables and PivotCharts, incorporate multiple data sources, and import and export data. In addition, the course is also for students desiring to prepare for the Microsoft Office Specialist exam in Excel 2003 or Module 2-Key Applications of the Internet and Computing Core Certification (IC3) exam, and who already have knowledge of the basics of Excel, including how to create, edit, format, and print worksheets that include charts and sorted and filtered data. Before attending this course, students must have some taken A-TIPS' Excel Level I and II courses or have equivalent knowledge.

Course Material/Text Books

The students will receive the MOS Certification Courseware by Microsoft Press. Microsoft Press courseware is the definitive source for Microsoft learning.

Course Outline

Streamlining Workflow 1 Hour

- Create a Macro
- Edit a Macro
- Customize Access to Excel Commands
- Apply Conditional Formatting
- Add Data Validation Criteria
- Update a Workbook's Properties
- Modify Excel's Default Settings

Collaborating with Others 1 Hour

- Protect Files
- Share a Workbook
- Set Revision Tracking
- Review Tracked Revisions
- Merge Workbooks
- Adjust Macro Settings
- Administer Digital Signatures

Auditing Worksheets 1 Hour

- Trace Cell Precedents
- Trace Cell Dependents
- Locate Errors in Formulas
- Locate Invalid Data and Formulas
- Watch and Evaluate Formulas
- Group and Outline Data

Analyzing Data 2 Hours

- Create a Trendline
- Create Scenarios
- Perform What-If Analysis
- Develop a PivotTable® Report
- Develop a PivotChart® Report
- Perform Statistical Analysis with the Analysis ToolPak

Working with Multiple Workbooks 1 Hour

- Create a Workspace
- Consolidate Data
- Link Cells in Different Workbooks
- Edit Links

Importing and Exporting Data 1 Hour

- Export to Microsoft Word
- Import a Word Table
- Import Text Files

Structuring XML Workbooks 1 Hour

- Develop XML Maps
- Import, Add, and Export XML Data
- Manage XML Workbooks
- Apply XML View Options

Outlook 2003 Level I
Course Overview

This course will provide students with the skills needed to start sending and responding to email in Microsoft Office Outlook 2003, as well as maintaining the Calendar, scheduling meetings, and working with tasks and notes.

Duration

The total length of this course is 8 Hours

Course Objectives

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

- Identify the components of the Outlook environment and compose and respond to a simple message.
- Compose messages.
- Use folders to manage mail.
- Schedule appointments.
- Schedule meetings.
- Manage contacts and contact information.

- Create and edit tasks.
- Create and edit notes.

Pre-requisites/Audience

This course is designed for people with a basic understanding of Microsoft Windows who need to learn how to use Microsoft Office Outlook 2003 to compose and send email, schedule appointments and meetings, manage contact information and tasks, and use notes. This course is intended for persons interested in pursuing the Microsoft Office Specialist certification for Outlook. Before attending this course, students must have some knowledge of Windows Operating Systems.

Course Material/Text Books

The students will receive the MOS Certification Courseware by Microsoft Press. Microsoft Press courseware is the definitive source for Microsoft learning.

Course Outline

Getting Started with Outlook 1 Hour

- Log On to Outlook
- The Outlook Environment
- Compose and Send a Simple Message
- Open a Message
- Reply to a Message
- Print a Message
- Delete a Message

Composing Messages 1 Hour

- Address a Message
- Format a Message
- Check Spelling and Grammar
- Attach a File
- Forward a Message

Managing Mail 1 Hour

- Open and Save an Attachment
- Flag a Message
- Create a Folder
- Move Messages to a Folder
- Copy Messages to Folders
- Delete a Folder

Scheduling Appointments 1 Hour

- The Outlook Calendar
- Schedule an Appointment
- Assign a Category to an Appointment
- Update Calendar Entries

Scheduling Meetings 1 Hour

- Schedule a Meeting
- Reply to a Meeting Request
- Propose a New Meeting Time
- Track Meeting Responses
- Update a Meeting Request
- Cancel a Meeting Request
- Print the Calendar

Managing Contacts 1 Hour

- Add a Contact
- Sort Contacts
- Find a Contact
- Generate a Map
- Edit a Contact

- Delete a Contact
- Print Contacts

Managing Tasks 1 Hour

- Create a Task
- Edit a Task
- Update a Task

Using Notes 1 Hour

- Create a Note
- Edit a Note
- Copy a Note

Outlook 2003 Level II

Course Overview

This course provides students with the necessary skills to customize their Outlook environment, calendar, and mail messages to meet their specific needs. Students will also learn how to track, share, assign, and quickly locate various Outlook items.

Duration

The total length of this course is 8 Hours

Course Objectives

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

- Track work activities using the Outlook Journal.
- Customize the calendar by setting various calendar options.
- Modify message options.
- Make folder information available to other Outlook users.
- Assign and track tasks.
- Customize the Outlook environment.
- Sort, find and color-code items in your mailbox and calendar.

Pre-requisites/Audience

This course is designed for experienced Outlook users who need to learn how to customize their environment, calendar, and mail messages to meet their specific needs and who wish to track, share, assign, and quickly locate various Outlook items. Before attending this course, students must have completed A-TIPS' Outlook Level I or have equivalent knowledge.

Course Material/Text Books

The students will receive the MOS Certification Courseware by Microsoft Press. Microsoft Press courseware is the definitive source for Microsoft learning.

Course Outline

Tracking Work Activities Using the Journal 1 Hour

- Record a Journal Entry Automatically
- Manually Record a Journal Entry
- Modify a Journal Entry

Setting Calendar Options 1 Hour

- Set Work Days and Times
- Display Other Time Zones
- Set Free/Busy Options

Setting Message Options 2 Hours

- Modify Message Settings
- Modify Delivery Options
- Modify Message Formats
- Notify Others that Someone will be Out of the Office
- Create and Modify a Distribution List

- Insert a Hyperlink

Sharing Folder Information 1 Hour

- Specify Folder Permissions
- Access Another User's Folder
- Delegate Access To Folders

Managing Tasks 1 Hour

- Assign a Task
- Reply to a Task Request
- Send a Task Update
- Track Assigned Tasks

Customizing Outlook 1 Hour

- Customize the Toolbar
- Create a New Toolbar
- Customize the Menu
- Create a Folder Home Page

Locating Outlook Items 1 Hour

- Sort Messages Using Multiple Criteria
- Find Messages
- Find Messages Using Multiple Criteria
- Filter Messages
- Organize Messages
- Manage Junk Email

Outlook 2003 Level III

Course Overview

This course builds on students email and calendaring skills and will provide the skills needed to communicate in real time with other users, personalize mail, organize items, share and link contacts, create forms, and work offline and remotely.

Duration

The total length of this course is 8 Hours

Course Objectives

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

- Communicate using MSN Messenger.
- Personalize your mail by using stationery and signatures.
- Organize Outlook items by grouping, creating Search Folders, setting rules, and applying conditional formatting.
- Use contacts to share, link, and communicate information.
- Save and archive mail.
- Create a custom form.
- Set up their computer for offline and remote use.

Pre-requisites/Audience

Persons with an intermediate understanding of Outlook who need to use Outlook to communicate using Instant Messaging, personalize and organize their mail, organize Outlook items, share and link contacts, create forms, and work offline and remotely. Before attending this course, students must have completed A-TIPS' Outlook Level I and II or have equivalent knowledge.

Course Material/Text Books

The students will receive the MOS Certification Courseware by Microsoft Press. Microsoft Press courseware is the definitive source for Microsoft learning.

Course Outline

Communicating Using MSN Messenger 1 Hour

- Obtain a Hotmail Account

- Add Contacts
- Send and Receive Instant Messages
- Attach a File
- Change MSN Messenger Status
- Change MSN Messenger Options

Personalizing Their Mail 1 Hour

- Use Stationery
- Create Custom Stationery
- Create Signatures
- Modify Signatures

Organizing Outlook Items 1 Hour

- Group Items
- Create Search Folders
- Create Rules
- Apply Conditional Formatting

Working with Contacts 2 Hours

- Forward Contacts
- Create a vCard from a Contact
- Export Contacts
- Perform a Mail Merge
- Link Items to a Contact

Saving and Archiving Mail 1 Hour

- Save Messages in Alternate Formats
- Archive Messages
- Protect Personal Folders

Creating a Custom Form 1 Hour

- Add Form Fields
- Save a Form
- Test a Form

Working Offline and Remotely 1 Hour

- Create an Offline Folder File
- Make a Folder Available Offline
- Create a Send/Receive Group
- Download Messages

PowerPoint 2003 Level I

Course Overview

In this course, students will create effective basic PowerPoint presentations for delivery in front of an audience.

Duration

The total length of this course is 8 Hours

Course Objectives

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

- Manipulate an existing PowerPoint presentation.
- Begin creating a presentation.
- Format text slides.
- Add tables to a presentation.
- Chart data in a presentation.
- Modify objects on slides.
- Add images to a presentation.
- Prepare to deliver a presentation.

Pre-requisites/Audience

This course is designed for students who are interested in learning the fundamentals needed to create and modify basic Microsoft Office PowerPoint 2003 presentations. This course is also intended for students who wish to pursue their Microsoft Office Specialist certification in PowerPoint 2003. Before attending this course, students must have some knowledge of Windows Operating Systems.

Course Material/Text Books

The students will receive the MOS Certification Courseware by Microsoft Press. Microsoft Press courseware is the definitive source for Microsoft learning.

Course Outline

An Orientation to PowerPoint 1 Hour

- The PowerPoint Environment
- Orientation to Views
- Navigate Through a Presentation
- Edit Slide Text
- Save the Presentation
- Run a Slide Show

Beginning a Presentation 1 Hour

- Create a New Presentation
- Change Background Color
- Add Slides to a Presentation
- Enter Text
- Create a Presentation from a Microsoft Word Outline

Formatting Text Slides 1 Hour

- Apply Character Formats
- Align Text
- Change Line Spacing
- Change Indents

Adding Tables to a Presentation 1 Hour

- Create a Table
- Format Tables
- Insert a Table from Microsoft Word

Charting Data 1 Hour

- Create a Column Chart
- Edit Chart Data
- Change Chart Type
- Insert a Chart from Microsoft Excel

Modifying Objects 1 Hour

- Resize Objects
- Copy and Duplicate Objects
- Move Objects
- Changing Object Orientation
- Format Objects
- Group and Ungroup Objects
- Change the Order of Objects

Adding Images to a Presentation 1 Hour

- Add Clip Art
- Add a Picture from a File
- Draw Lines and Shapes
- Insert WordArt

Preparing to Deliver a Presentation 1 Hour

- Spell Check
- Arrange Slides
- Add Transitions

- Create Speaker Notes
- Send a Presentation to Microsoft Word
- Print the Presentation
- Package a Presentation for CD

PowerPoint 2003 Level II

Course Overview

In this course, students will enhance presentations with features that will transform basic presentations into those with a powerful means of communication.

Duration

The total length of this course is 8 Hours

Course Objectives

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

- Create a design template.
- Create organization charts and diagrams.
- Add special effects to a Microsoft Office PowerPoint 2003 slide.
- Create a Web-based Microsoft Office PowerPoint 2003 presentation.
- Use a Microsoft Office PowerPoint 2003 presentation for collaborative workgroup review.
- Use functionality that will enable student to deliver live, self-service, and online presentations.

Pre-requisites/Audience

This course is designed for students who desire to gain the skills necessary to work with design templates, organizational charts, special effects, Web presentations, collaboration functionality, and advanced presentation delivery, or students who desire to prepare for the Microsoft Office Specialist exam in Microsoft Office PowerPoint 2003 and who already have knowledge of the basics of Microsoft Office PowerPoint 2003, including slide formatting, working with tables, images, and objects, charting data, and presentation preparation. Before attending this course, students must have completed A-TIPS' Powerpoint Level I or have equivalent knowledge.

Course Material/Text Books

The students will receive the MOS Certification Courseware by Microsoft Press. Microsoft Press courseware is the definitive source for Microsoft learning.

Course Outline

Creating a Custom Design Template 1 Hour

- Define Design Template Characteristics
- Create a Custom Color Scheme
- Set Up a Slide Master
- Format Custom Bullets
- Add a Footer
- Modify the Notes Master
- Save a Custom Design Template

Adding Organization Charts and Diagrams 2 Hours

- Working with Organization Charts
- Update an Organization Chart
- Applying a Chart Layout
- Create a Diagram
- Draw a Flowchart

Adding Special Effects 2 Hours

- Add Sound and Movies
- Add Animation
- Emphasize Objects
- Set a Motion Path
- Set the Order of Effects

Creating Web Presentations 1 Hour

- Create a Group Home Page with the AutoContent Wizard
- Hyperlink to a Web Page
- Publish as a Web Page

Collaborating in PowerPoint 1 Hour

- Set Password Protection
- Work with Comments
- Send a Presentation for Review
- Merge Revision Copies
- Apply Reviewer Changes

Delivering a Presentation 1 Hour

- Hyperlink Within PowerPoint
- Add an Action Button
- Set Up a Custom Show
- Annotate a Presentation
- Working with Narrations and Slide Timings
- Set Up a Slide Show to Repeat Automatically

Word 2003 Level I

Course Overview

In this course, students will create, edit, and enhance standard business documents using Microsoft Office Word 2003.

Duration

The total length of this course is 8 Hours

Course Objectives

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

- Create a basic document.
- Edit documents by locating and modifying text.
- Format text.
- Format paragraphs.
- Use Word tools to make their documents more accurate.
- Add tables to a document.
- Add graphic elements to a document.
- Control a document's page setup and its overall appearance.

Pre-requisites/Audience

Persons with a basic understanding of Microsoft Windows who need to learn how to use Microsoft Office Word 2003 to create, edit, format, lay out, and print standard business documents complete with tables and graphics. This course is intended for persons interested in pursuing Microsoft Office Specialist certification in Microsoft Office Word 2003. Before attending this course, students must have some knowledge of Windows Operating Systems.

Course Material/Text Books

The students will receive the MOS Certification Courseware by Microsoft Press. Microsoft Press courseware is the definitive source for Microsoft learning.

Course Outline

Creating a Basic Document 1 Hour

- The Word Environment
- Get Help Using Word
- Enter Text
- Save a New Document
- Preview a Document
- Print a Document

Editing a Document 1 Hour

- Navigate in a Document

- Insert Text
- Select Text
- Create an AutoText Entry
- Move and Copy Text
- Delete Blocks of Text
- Undo Changes
- Find and Replace Text

Formatting Text 1 Hour

- Change Font and Size
- Apply Font Styles and Effects
- Change Text Color
- Highlight Text
- Copy Formats
- Clear Formatting
- Find and Replace Text Formatting

Formatting Paragraphs 1 Hour

- Set Tabs
- Change Paragraph Alignment
- Indent Paragraphs
- Add Borders and Shading
- Apply Styles
- Create Lists
- Change Spacing Between Paragraphs and Lines

Proofing a Document 1 Hour

- Use the Thesaurus
- Check Spelling and Grammar
- Create a New Default Dictionary
- Check Word Count
- Modify a Document in Print Preview

Adding Tables 1 Hour

- Create a Table
- Enter Data in a Table
- AutoFormat a Table
- Convert Text to a Table

Inserting Graphic Elements 1 Hour

- Insert Symbols and Special Characters
- Insert a Clip Art Picture
- Add a Watermark

Controlling Page Appearance 1 Hour

- Set Page Orientation
- Change Page Margins
- Apply a Page Border
- Add Headers and Footers
- Insert a Page Break

Word 2003 Level II

Course Overview

In this course, students increase the complexity of their Microsoft Office Word 2003 documents by adding components such as customized lists, tables, charts, and graphics. They also create personalized Microsoft Office Word 2003 efficiency tools.

Duration

The total length of this course is 8 Hours

Course Objectives

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

- Manage data in lists.
- Customize tables and charts.
- Customize formatting.
- Work with custom styles.
- Modify pictures in a document.
- Create customized graphic elements.
- Control text flow.
- Automate common tasks.
- Automate document creation.
- Perform mail merges.

Pre-requisites/Audience

This course was designed for persons who can create and modify standard business documents in Microsoft Office Word 2003, and who need to learn how to use Microsoft Office Word 2003 to create or modify complex business documents as well as customized Word efficiency tools. It will be helpful for persons preparing for the Microsoft Office Specialist exams for Microsoft Office Word 2003. Before attending this course, students must have completed A-TIPS' Word Level I or have equivalent knowledge.

Course Material/Text Books

The students will receive the MOS Certification Courseware by Microsoft Press. Microsoft Press courseware is the definitive source for Microsoft learning.

Course Outline**Managing Lists 1 Hour**

- Sort a List
- Restart a List
- Create an Outline Numbered List
- Customize List Appearance

Customizing Tables and Charts 1 Hour

- Sort a Table
- Modify Table Structure
- Merge or Split Cells
- Position Text in a Table Cell
- Apply Borders and Shading
- Perform Calculations in a Table
- Create a Chart from a Word Table
- Modify a Chart

Working with Custom Styles 1 Hour

- Create a Character or Paragraph Style
- Modify an Existing Style
- Create a List Style
- Create a Table Style

Modifying Pictures 1 Hour

- Set Picture Contrast or Brightness
- Crop a Picture
- Wrap Text Around a Picture

Creating Customized Graphic Elements 1 Hour

- Draw Shapes and Lines
- Insert WordArt
- Insert Text Boxes
- Create Diagrams

Automating Common Tasks 1 Hour

- Run a Macro
- Create a Macro
- Modify a Macro

- Customize Toolbars and Buttons
- Add Menu Items

Automating Document Creation 1 Hour

- Create a Document Based on a Template
- Create a Document by Using a Wizard
- Create or Modify a Template
- Change the Default Template Location
- Insert a MacroButton Field in a Template

Performing Mail Merges 1 Hour

- The Mail Merge Process
- Perform a Merge on Existing Documents
- Merge Envelopes and Labels
- Use Word to Create a Data Source

Word 2003 Level III

Course Overview

In this course, students will learn how to use Word to create, manage, revise, and distribute long documents, forms, and Web pages.

Duration

The total length of this course is 8 Hours

Course Objectives

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

Link Ms Word with Ms Excel Worksheet

Add reference marks and notes.

Create web pages in Word.

Pre-requisites/Audience

This course was designed for persons with a basic understanding of Microsoft Windows who can create and modify standard business documents in Microsoft OfficeWord 2003, and who need to learn how to use the more advanced features of Word 2003 to create, manage, revise, and distribute long documents, forms, and Web pages. This course is intended for persons interested in pursuing Microsoft Office Specialist certification in Microsoft Word 2003. Before attending this course, students must have completed A-TIPS' Word Level I and II or have equivalent knowledge.

Course Material/Text Books

The students will receive the MOS Certification Courseware by Microsoft Press. Microsoft Press courseware is the definitive source for Microsoft learning.

Course Outline

Using Microsoft Office Word 2003 with Other Programs 1 Hour

- Link to a Microsoft Office Excel 2003 Worksheet
- Link a Chart to Excel Data
- Send a Document Outline to PowerPoint
- Extract Text from a Fax
- Save a Document as a Different File Format
- Look Up Information Using Research Sites
- Send a Document as an Email Attachment

Collaborating on Documents 1 Hour

- Modify User Information
- Create a New Version of a Document
- Delete Old Versions
- Send a Document for Review
- Use Comments
- Compare Document Changes

- Merge Document Changes
- Review a Document

Adding Reference Marks and Notes 1 Hour

- Insert Bookmarks
- Insert Footnotes and Endnotes
- Add Captions
- Insert Cross-references

Making Long Documents Easier to Use 1 Hour

- Mark Text for Indexing
- Insert an Index
- Insert a Table of Figures
- Mark Text for a Table of Authorities
- Insert a Table of Authorities
- Insert a Table of Contents
- Create a Master Document
- Automatically Summarize a Document

Securing a Document 1 Hour

- Update a Document's Properties
- Save a Document without Personal Information
- Hide Text
- Limit Formatting Choices in a Document
- Select Regions of a Document that Can Be Modified
- Add a Digital Signature to a Document
- Require a Password to Open a Document

Creating Web Pages 1 Hour

- Create a Web Page
- Insert Hyperlinks
- Insert a Movie Clip into a Web Page
- Apply a Theme to a Web Page
- Create a Framed Web Page
- Save a Web Page to a Web Server

Creating Forms 1 Hour

- Add Form Fields to a Document
- Protect a Form
- Save Form Data as Plain Text
- Automate a Form

Using XML in Word 1 Hour

- Tag an Existing Document
- Save a Document as XML
- Transform an XML Document

HTML 4.01 Programming

Course Overview

In this course, students will learn how to use HTML to create Web pages..

Duration

The total length of this course is 16 Hours

Course Objectives

- Recognize the components of an HTML file and create such a file.
- Format paragraphs and characters using HTML.
- Link to local files and Web pages from their Web pages.

- Add graphics and sound to their Web pages using HTML.
- Create different kinds of lists to their Web page using HTML.
- Create multi-column and multi-row tables using HTML.
- Set background colors and graphics for Web pages.
- Evaluate Web page design and consider design issues that affect web pages.
- Add links to non-Web Internet sites from their Web pages.
- Create advanced tables, including nested tables.
- Size and place graphics, including imagemaps, in a Web page.
- Create Web forms.
- Create forms with advanced input types and attributes.
- Create and work with framed Web pages.
- Create documents that automatically display another page and documents that contain interactive JavaScripts and applets.
- Design Web pages using style sheets.

Pre-requisites/Audience

The target student is one who wants to learn more about HTML programming or needs to create Web pages. Before attending this course, students must have some basic knowledge of Microsoft Windows Operating Systems.

Course Material/Text Books

The students will receive the Introduction to HTML 4 Programming Course book by Thomson Courseware.

Course Outline

Overview of HTML 1 Hour

- Overview
- Introduction to HTML
- Creating an HTML document

Formatting text with HTML 1 Hour

- Paragraph formatting with HTML
- Character formatting with HTML
- Comparing procedural and descriptive formatting

Adding local and remote links 1 Hour

- Adding local links
- Adding remote links
- Adding internal links with the named anchor tag

Adding graphics and sound 1 Hour

- Linking to and embedding graphics
- Linking to multimedia files

Creating lists in HTML 1 Hour

- Creating lists
- Creating nested lists

Creating tables in HTML 1 Hour

- Creating and modifying tables
- Creating advanced table elements

Setting body and background attributes 1 Hour

- Setting backgrounds and text colors

Web page design guidelines 1 Hour

- Web page style considerations

Adding links to other Internet services 1 Hour

- Links to non-Web Internet services

Advanced tables 1 Hour

- Creating nested tables
- Using tables for page layout

Graphics 1 Hour

- Incorporating graphics into a document
- Creating and using imagemaps

Creating forms 1 Hour

- Introduction to forms

Advanced forms 1 Hour

- Using advanced input types
- Setting input type attributes
- Creating a text area
- Creating form list boxes

Frames 1 Hour

- Overview of frames
- Creating frames
- Applying frame attributes
- Using nested framesets

Dynamic and interactive documents 1 Hour

- Interactive Web pages
- JavaScript in HTML documents
- Java in HTML documents

Cascading Style Sheets (CSS-1) 1 Hour

- Introduction to style sheets (CSS-1)
- Working with style sheet properties and selectors
- Linked style sheets

JavaScript Programming

Course Overview

This hands on JavaScript training course provides the knowledge necessary to design and develop dynamic web pages using JavaScript. It introduces students to JavaScript and how the language can be used to turn static HTML pages into dynamic, interactive web pages. Students will learn the syntax of the JavaScript language and how client-side scripts interact with server-side programs.

Duration

The total length of this course is 32 Hours

Course Objectives

Lesson objectives help students become comfortable with the course, and also provide a means to evaluate learning. Upon successful completion of this course, students will be able to:

- List the JavaScript syntax rules and implement good coding practices.
- List the data and variable types that JavaScript supports, use the many control statements available in JavaScript, and create and use functions.
- Describe object characteristics, use objects, instantiate objects, and create custom objects.
- Describe the purpose of the Document object and use its properties, methods, and event handlers.
- Script with frames in mind.
- Describe the purpose of the Form object and use its properties, methods, and event handlers to read and write to HTML forms.
- Choose a general process for validating user input into web forms.
- Validate user input into HTML forms including testing for required fields, numeric data and numeric data within a range of values specified, and string data.
- Describe the purpose of the Date object, instantiate and use instances of the Date object to create clocks, count-down timers, and perform date math.
- Describe the purpose of the Math object and use its constants and methods to perform mathematical operations.

- Characterize the compatibility landscape and choose between the various techniques for dealing with potential incompatibilities. Detect browsers in order to create code that works around platform incompatibilities.
- Debug and maintain JavaScript code libraries.
- Develop Web pages that display different content or execute different code based on the version of JavaScript that is present on the Web client.
- Create custom objects with custom methods and properties.
- Create, read to, write from, and delete single and multi-dimensional arrays.
- Store, retrieve, and delete cookies.
- Write JavaScript code to communicate with Java applets, ShockWave movies, ActiveX controls, and server applications.

Pre-requisites/Audience

The target student is one who wants to learn about JavaScript programming and one who is interested in becoming a webmaster, software developer, application programmer or client/server developer. Before attending this course, students must have taken A-TIPS' HTML 4.0 Programming course and have a strong familiarity with using the Internet or equivalent knowledge.

Course Material/Text Books

The students will receive the Introduction to JavaScript Programming Course book by Thomson Courseware.

Course Outline

Getting Started with JavaScript 2 Hours

- JavaScript Overview
- JavaScript Programming Overview
- Variables and Data Types Overview
- Using Variables and Data
- Operators

JavaScript Building Blocks—Control Statements 2 Hours

- Controlling the flow – JavaScript Control Statements
- JavaScript Building Blocks—Functions and Objects

Functions 2 Hours

- Objects

The Window Object 2 Hours

- The Window Object
- Dialog Boxes
- Status Bar Messages
- Window Manipulations

The Document Object 2 Hours

- The Document Object
- Writing to Documents
- Dynamic Documents

Working with Frames 2 Hours

- HTML Frames Review
- Scripting for Frames

Working with Forms and Forms-based Data 2 Hours

- The Form Object
- Working with Form Elements and Their Properties

Validating Form Data 2 Hours

- A General Approach
- Testing for Required Fields
- Validating Numeric Data
- Validating String Data

Dates and Math 2 Hours

- Overview of the Date Object
- Using and manipulating Dates
- Overview of the Math Object
- Doing Math with JavaScript

Introduction to Cross-browser Compatibility 2 Hours

- Examining the Compatibility Landscape
- Detecting Browser and Platforms

Programming techniques 2 Hours

- Toward ease of maintenance
- Debugging JavaScript code

Cross-browser compatibility 2 Hours

- Supporting multiple browsers
- Dealing with browsers that do not support JavaScript
- Detecting browser and JavaScript versions
- Object detection
- Custom error handlers

Custom Objects 2 Hours

- Introduction to objects
- Constructor functions
- Methods

Arrays 2 Hours

- Introduction to arrays
- Creating and populating arrays
- Deleting array elements
- Multi-dimensional arrays

Cookies 2 Hours

- Introduction to the Cookie object
- Storing cookies
- Reading and processing cookie values
- Deleting cookies

Communicating with applets and server applications 2 Hours

- Communicating with Java applets
- Communicating with ShockWave applets
- Communicating with ActiveX
- Communicating with server applications

Java Programming

Course Overview

This hands on course introduces experienced programmers to Sun's Java technology and Java programming techniques. The Java platform provides an object-oriented, portable and robust framework for application development. Attendees will learn how to integrate Java technology into corporate web pages and how Java can be used as a powerful cross-platform distributed development engine.

Duration

The total length of this course is 40 Hours

Course Objectives

Upon completion of this course, students should be able to:

- Create Java technology applications that leverage the object-oriented features of the Java language, such as encapsulation, inheritance and polymorphism
- Execute and run a Java technology application

- Use Java technology data types and expressions
- Use Java technology flow control constructs
- Use arrays and other data collections
- Implement error-handling techniques using exception handling
- Create event driven GUI using Java technology GUI components: panels, buttons, labels, text fields, and text areas (GUI Programming using AWT and SWING)
- Implement I/O functionality to read from and write to data and text files
- Create multithreaded programs (Thread Programming)
- Create a simple Transmission Control Protocol/Internet Protocol (TCP/IP) client that communicate through sockets (Java Network Programming)

Pre-requisites/Audience

Students who can benefit from this course are programmers who are interested in adding the Java programming language to their list of skills and students who are preparing for the Sun Certified Programmer for Java examination. To succeed fully in this course, students should be able to understand basic object-oriented principles, create or compile simple programs in a language, such as Visual Basic, Pascal, C, C++, or equivalent, create and edit text files using a text editor, use an Internet browser, such as Netscape Navigator

Course Material/Text Books

The students will receive the Java Programming Course book by Thomson Courseware.

Course Outline

Getting Started 2 Hours

- Describe the key features of Java technology
- Write, compile, and run a simple Java technology application
- Describe the Java virtual machine's (JVM machine's) function
- Define garbage collection
- List the three tasks performed by the Java platform that handle code security

Object Oriented Programming 2 Hours

- Define modeling concepts: abstraction, encapsulation, and packages
- Discuss why a student can reuse Java technology application code
- Define class, member, attribute, method, constructor, and package
- Use the access modifiers private and public as appropriate for the guidelines of encapsulation
- Invoke a method on a particular object
- In a Java technology program, identify the following: The package statement; The import statements; Classes, methods and attributes; and Constructors
- Use the Java technology API online documentation

Identifiers, Keywords And Types 3 Hours

- Use comments in a source program
- Distinguish between valid and invalid identifiers
- Recognize Java technology keywords
- List the eight primitive types
- Define literal values for numeric and textual types
- Define the terms primitive variable and reference variable
- Declare variables of class type
- Construct an object using new
- Describe default initialization
- Describe the significance of a reference variable
- State the consequence of assigning variables of class type

Expressions and Flow Control 3 Hours

- Distinguish between instance and local variables
- Describe how to initialize instance variables
- Identify and correct a Possible reference before assignment compiler error
- Recognize, describe, and use Java software operators
- Distinguish between legal and illegal assignments of primitive types
- Identify boolean expressions and their requirements in control constructs
- Recognize assignment compatibility and required casts in fundamental types

- Use if, switch, for, while, and do constructions and the labeled forms of break and continue as flow control structures in a program

Arrays 3 Hours

- Declare and create arrays of primitive, class, or array types
- Explain why elements of an array are initialized
- Explain how to initialize the elements of an array
- Determine the number of elements in an array
- Create a multidimensional array
- Write code to copy array values from one array type to another

Class Design 3 Hours

- Define inheritance, polymorphism, overloading, overriding, and virtual method invocation
- Use the access modifiers protected and "package-friendly"
- Describe the concepts of constructor and method overloading
- Describe the complete object construction and initialization operation
- In a Java program, identify the following: Overloaded methods and constructors; The use of this to call overloaded constructors; Overridden methods; Invocation of super class methods; Parent class constructors; and Invocation of parent class constructors

Advanced Class Features 3 Hours

- Describe static variables, methods, and initializers
- Describe final classes, methods, and variables
- Explain how and when to use abstract classes and methods
- Explain how and when to use nested classes
- Distinguish between static and non-static nested classes
- Explain how and when to use an interface
- In a Java software program, identify: static methods and attributes; final methods and attributes; Nested classes; interface and abstract classes; and abstract methods

Exceptions and Assertions 3 Hours

- Define exceptions
- Use try, catch, and finally statements
- Describe exception categories
- Identify common exceptions
- Develop programs to handle their own exceptions
- Use assertions
- Distinguish appropriate and inappropriate uses of assertions
- Disable assertions at runtime

Text-Based Applications 3 Hours

- Write a program that uses command-line arguments and system properties
- Write a program that reads from standard input
- Write a program that can create, read, and write files
- Describe the basic hierarchy of collections in Java 2 SDK
- Write a program that uses sets and lists
- Write a program to iterate over a collection
- Describe the collection classes that existed before Java 2 SDK
- Identify deprecated classes and explain how to migrate from Java Development Kit (JDK) 1.0 to JDK 1.1 to Java 2 JDK

Building Java GUIs 3 Hours

- Describe the Abstract Windowing Toolkit (AWT) package and its components
- Define the terms containers, components and layout managers, and describe how they work together to build a GUI
- Use layout managers
- Use the FlowLayout, BorderLayout, and GridLayout managers to achieve a desired dynamic layout
- Add components to a container
- Use the Frame and Panel containers appropriately
- Describe how complex layouts with nested containers work
- In a Java technology program, identify the following: Containers; The associated layout managers; and the layout hierarchy of all components

GUI Event Handling 2 Hours

- Define events and event handling
- Write code to handle events that occur in a GUI
- Describe the concept of adapter classes, including how and when to use them
- Determine the user action that originated the event from the event object details
- Identify the appropriate interface for a variety of event types
- Create the appropriate event handler methods for a variety of event types
- Understand the use of inner classes and anonymous classes in event handling

GUI-Based Applications with AWT and SWING 2 Hours

- Identify the key AWT components and the events that they trigger
- Describe how to construct a menu bar, menu, and menu items in a Java GUI
- Understand how to change the color and font of a component

Threads (Multi-Threaded Programming) 3 Hours

- Define a thread
- Create separate threads in a Java technology program, controlling the code and data that are used by that thread
- Control the execution of a thread and write platform-independent code with threads
- Describe the difficulties that might arise when multiple threads share data
- Use wait and notify to communicate between threads
- Use synchronized to protect data from corruption

Advanced I/O Streams 2 Hours

- Describe the main features of the java.io package
- Construct node and processing streams, and use them appropriately
- Distinguish readers and writers from streams, and select appropriately between them

Java Network Programming 3 Hours

- Develop code to set up the network connection
- Understand the TCP/IP protocol
- Use ServerSocket and Socket classes for implementing TCP/IP clients and servers

Active Server Pages**Course Overview**

This ASP Programming hands on training course provides the knowledge necessary to design and develop dynamic web pages using Active Server Pages. The course introduces the ASP Object Model, several built-in ASP Components, Scripting Objects, and the ActiveX Data Objects (ADO) Model. Students will learn advanced concepts and techniques of ASP programming while building basic ASP applications.

Duration

The total length of this course is 40 Hours

Course Objectives

Lesson objectives help students become comfortable with the course, and also provide a means to evaluate learning. Upon successful completion of this course, students will be able to:

- Describe what ASP is, what platforms and applications support it, and the role of scripting languages, objects, and components in ASP programming.
- Use Server-side Includes to improve Web programming efficiency through modularization.
- Describe the role of the ASP Response object and use its Write, Redirect, and output control properties and methods.
- Describe the role of the ASP Request object and use its Form, QueryString, and ServerVariables collections to obtain user-supplied information and environment details.
- Determine the value of cookies in maintaining user state and use the Cookie collections of the Request and Response objects.
- Describe what ASP components are and use the Server object to instantiate ASP components.
- Use the Ad Rotator, Browser Capabilities, and Content Linking components.
- Describe the difference between ASP applications and sessions and use the
- Global.asa file to launch application and session events.

- Describe what Scripting Objects are and use the Dictionary, FileSystemObject, and TextStream objects to further enable their ASP Web sites.
- Describe the relationship between ASP and ADO and create a database connection from a Web site.
- Use the Recordset object to display database records, create on-the-fly combo boxes and option groups, and filter records based on user input.
- Add, update, and delete records in a database using both ADO and SQL query methods.
- Use stored procedures and parameter queries to improve database access on the Web.
- Create a data browser that allows forward and backward recordset browsing and a paged recordset display system.
- Use the FileSystemObject and TextStream objects along with the Server.MapPath method to construct a guestbook and a simple chat application.
- Use CSS with ASP to offer visitors the ability to create dynamic stylesheets.
- Create a database-driven Web poll and learn how to test their ASP scripts for speed and performance.
- Use the ADO Shape command and hierarchical recordsets to create a simple Quiz, and use the Session object to grade the results.
- Use Sub procedures to build a discussion board application, and then add a recursive procedure to display message threading.
- Use VBScript date/time functions, custom Function procedures, and the Recordset object's Filter and Bookmark properties to create a database-driven event calendar.
- Decide amongst the many options for maintaining user state and how a database can be used in an ASP shopping cart application.
- Display products by category or keyword searches, using GetRows, GetString, Buffer, Flush, IsClientConnected, and other techniques to improve lengthy results.
- Build a shopping cart display script, using a database to track the user's contents.
- Display the final order, create an order invoice for customers to print, and consider the many additional features a student might want to add to this course's simple shopping cart.
- Create a database-driven advertisement rotation and tracking system and add an affiliate-program to their shopping cart.

Pre-requisites/Audience

Students needing to transform their static HTML-only Web site into a dynamic, data-driven Web site that accesses databases, uses COM components, dynamically serves information from a variety of sources, and much more. Before attending this course, students must have taken A-TIPS' HTML 4.0 Programming course and Java Script Programming course and have a strong familiarity with using the Internet or equivalent knowledge.

Course Material/Text Books

The students will receive the Active Server Pages 3.0 Course book by Thomson Courseware.

Course Outline

Introduction to ASP 1 Hour

- What is ASP?
- ASP Scripting Languages, Objects, and Components

Server-side Includes 1 Hour

- Using Server-side Includes
- Using Dynamic Server-side Includes

The Response Object 2 Hours

- What is the Response Object?
- The Write Method
- The Redirect Method
- Controlling Output

The Request Object 2 Hours

- What is the Request Object?
- The Form Collection
- The QueryString Collection
- The ServerVariables Collection

Cookies 1 Hour

- What are Cookies?
- The Response.Cookies Collection
- The Request.Cookies Collection

ASP Components 2 Hours

- What are ASP Components?
- The Server Object
- The AdRotator Component
- The Browser Capabilities Component
- The Content Linking Component

Applications, Sessions, and the Global.asa 2 Hours

- What are ASP Applications and Sessions?
- What is the Global.asa?

Scripting Objects 2 Hours

- The Built-in Scripting Objects
- The FileSystemObject Object
- The TextStream Object

ASP and the ADO Model 2 Hours

- ASP, Databases, and ADO
- The Database Environment
- Connecting to the Database

Viewing Database Records 1 Hour

- Working with Recordsets
- Creating Combo Boxes and Option Groups
- Filtering Records

Adding, Updating, and Deleting Records 1 Hour

- Adding Records to a Database
- Updating Records in a Database
- Deleting Records from a Database

Stored Procedures and Parameters 2 Hours

- Using Stored Procedures
- The Command Object
- Parameter Queries

Advanced Recordset Techniques 2 Hours

- Editing Records with a Data Browser
- Paging Through a Recordset

An ASP Guestbook and Simple Chat Application 2 Hours

- The World of Active Server Pages and General Development Issues
- An ASP Guestbook
- An ASP Chatroom

Site Personalization with CSS and ASP 2 Hours

- Multiple Style Sheets with ASP
- Dynamic Personalized CSS

An ASP Web Poll 1 Hour

- Developing a Web Poll
- ASP Efficiency and Performance Issues

An ASP Quiz Application 1 Hour

- Building a Quiz Application
- Grading the Quiz

An ASP Discussion Board 2 Hours

- Designing a Discussion Board Application
- Creating the Basic Discussion Forum
- Displaying a Thread Structure in Outline Format

An ASP Event Calendar 1 Hour

- Creating a Calendar
- Adding a Database of Events

Shopping Cart Design and Database Considerations 2 Hours

- Planning a Shopping Cart
- Database Design Issues
- Considerations for the Unique CartID

Product Display and Searching 2 Hours

- Working with Product Categories
- Product Display and Keyword Searching

The Shopping Cart Script 2 Hours

- Building the Shopping Cart
- Updating Quantity and Deleting Items
- Customer Information, Shipping & Handling, and Taxes

Taking Product Orders 2 Hours

- Finalizing an Order
- Customer Relations and Further Directions

An Ad Rotation and Tracking System and a Simple Affiliates Program 2 Hours

- Creating a Database-Driven Ad Rotator System
- Creating Ad Reports
- Adding a Web Affiliate Program to their Shopping Cart

Perl Programming and CGI Scripting**Course Overview**

This two-day course provides an in-depth understanding and hands-on knowledge of the capabilities of the de facto Internet client-server communications protocol: Common Gateway Interface (better known as CGI). In this course, students will learn about the specifications of the CGI protocol, details regarding its operation, and how to use the Perl programming language to perform common and powerful CGI communications and processing tasks on a Web server. To get the most from this course, students should have a thorough understanding of and experience with HTML 4.0. Experience with a programming language is not necessary, but will speed their progress.

Duration

The total length of this course is 24 Hours

Course Objectives

Lesson objectives help students become comfortable with the course, and also provide a means to evaluate learning. Upon successful completion of this course, students will be able to:

- Output dynamically generated HTML to a Web browser.
- Process data from an HTML form.
- Save data to a Web server.

Pre-requisites/Audience

The target student is one who wants to learn about Perl programming and CGI Scripting. To ensure success, we recommend students first take the A-TIPS' HTML 4.01 Programming course or have equivalent knowledge. In addition, students should be familiar with the process of uploading files to a Web server via FTP (File Transfer Protocol).

Course Material/Text Books

The students will receive Learning Perl and CGI Course book by Thomson Courseware.

Course Outline

Introduction to CGI 2 Hours

- CGI: Beyond HTML
- How a Web Server Functions
- The CGI Protocol
- CGI Programming Languages

Introduction to Perl 2 Hours

- History of Perl
- Perl Advantages & Disadvantages
- The Perl Interpreter
- Perl File Conventions
- Using Perl on UNIX

How Perl Talks to the Browser 2 Hours

- Perl / Browser Communication
- Making a CGI Look Like a Web Page
- Print Using "qq"
- Printing Multiple Lines

Perl Variables 2 Hours

- Variables
- Scalars
- Arrays
- Hashes

Perl Loops & Logic 2 Hours

- Loops
- Logical Operations
- Else & elsif

How the Browser Talks to Perl 2 Hours

- Environment Variables
- GET & POST
- Using CGI.PM
- Debugging CGIs

Storing & Retrieving Information 2 Hours

- Storing Data
- Writing Data to a File
- Appending Data
- Reading Data

REGEX: The Match Operator 2 Hours

- Introduction to Regexes
- The m// Operator
- i Modifier
- Special Characters
- Character Classes
- Parentheses

REGEX: The Substitute Operator 2 Hours

- s/// Operator
- More Modifiers
- Backreferences
- tr/// Operator

Subroutines 2 Hours

- Organizing Data
- Scoping
- Functions

CGI Techniques 2 Hours

- Outputting Graphics
- Outputting PDF
- Redirecting the Browser
- Using HTML Templates
- Cookies
- Sending E-mail Using CGI

CGI Security 2 Hours

- Web Server Security
- Writing Secure CGIs

Advanced Perl Programming**Course Overview**

Advanced Perl Programming 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.

Duration

The total length of this course is 34 Hours

Course Objectives

Lesson objectives help students become comfortable with the course, and also provide a means to evaluate learning. Upon successful completion of this course, students will be able to:

- Write Perl code that is easy to use, easy to read, and easy to extend.
- Take advantage to the rich context created by other Perl programmers and the free software they have published.
- Use advanced features of the Perl programming language to save time and provide solutions to difficult problems.
- Interact with the server, manipulate files and directories, and interact with external programs on the server.
- Use SQL databases from their Perl scripts to save programming time and increase performance.
- Use cookies for sessions and authentication.
- Work with a range of E-commerce solutions, from simple order forms to shopping baskets with realtime credit card transactions.
- Write Perl scripts that send e-mail.
- Use HTML templates to enhance the integration of script generated content with the design of pages in which it appears.
- Reuse their Perl code by creating subroutines and modules.
- Create Perl programs that work well in a command line environment.
- Find and solve tricky and elusive bugs in their script.
- Extend the capabilities of their scripts by running other programs.
- Write Perl scripts that can be run on any platform.

Pre-requisites/Audience

The target student is one who wants to learn more about Perl programming. To ensure success, it is recommended that students first take the A-TIPS' Perl Programming and CGI Scripting course or have equivalent knowledge.

Course Material/Text Books

The students will receive Mastering Perl Course book by Thomson Courseware.

Course Outline**Literate Programming for Perl 2 Hours**

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

Using Perl Modules 2 Hours

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

References & Nested Variables 2 Hours

- Introduction to References
- Creating References
- Values for References

Useful Perl Functions 2 Hours

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

Advanced Command Structure Topics 2 Hours

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

File & Directory Manipulation for Perl 2 Hours

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

Database Concepts 2 Hours

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

Web Concepts 2 Hours

- CGI.pm
- Sessions & Cookies

E-Commerce 2 Hours

- Online Order Forms
- Shopping Basket
- Downloading Orders
- Realtime Credit Card Processing

Using Perl to Send E-mail 2 Hours

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

Using HTML Templates 2 Hours

- Simple HTML Templates
- HTML::Template

Creating Subroutines 2 Hours

- Strategies for Code Re-use
- Subroutines
- Scope
- Passing Parameters to Subroutines

- Returning Results from Subroutines
- Recursive Subroutines

Perl Libraries & Modules 2 Hours

- Perl Libraries
- Modules

Command Line Environment for Perl 2 Hours

- Standardizing Command-line Syntax
- Perl Flags

Debugging Code 2 Hours

- Getting Better Debugging Information
- Perl Debugger

Interacting with Outside Programs 2 Hours

- Invoking Operating System Commands
- Pipes

Platform Considerations 2 Hours

- Installing Perl
- Cross-platform Issues

Oracle Application Server 10g Administration**Course Overview**

Oracle Application Server 10g is an integrated, standards-based software platform that allows organizations of all sizes to be more responsive to changing business requirements. It provides all the middleware services students need to deploy and manage applications and Web services, deliver personalized applications through enterprise portals and mobile devices, provide real-time business intelligence, integrate applications, and automate business processes. This course covers managing application server, Oracle iHat tool, Lightweight Directory Access Protocol (LDAP), Oracle Internet Directory (OID), Oracle HTTP server, Oracle Web Cache, managing, configuring OC4J applications, maintaining OC4J Application pages, OracleAS Portal, managing portal users and groups, exporting and importing portal objects, and Oracle portal advanced configurations. This course also covers J2EE Applications, Oracle Internet Directory, Delegated Administration Service, Single Sign-On, and Secure Sockets Layer.

Duration

The total length of this course is 32 Hours

Course Objectives

Lesson objectives help students become comfortable with the course, and also provide a means to evaluate learning. Upon successful completion of this course, students will be able to:

- Identify attributes of grid technology
- Identify benefits of using Enterprise Manager Grid Control comprehensive management system
- Identify features of Oracle Application Server 10g (OracleAS)
- Identify methods of managing Oracle Application Server (OracleAS) by using its Application Server Control (ASC)
- Identify characteristics of the Oracle Process Management and Notification (OPMN) server
- Identify characteristics of Distributed Configuration Management (DCM)
- Identify options for managing Oracle Containers for J2EE (OC4J) instances
- Identify tasks to be performed for configuring Oracle Containers for J2EE (OC4J) instances
- Identify different properties of an Oracle Containers for J2EE (OC4J) instance
- Sequence the steps to deploy Web application modules
- Identify tasks to be performed for administering data sources
- Identify features of Enterprise JavaBeans (EJB)

Pre-requisites/Audience

This course is intended for students who want to learn Oracle 10g Application Server Administration to become Web Administrators and Technical Consultants. To ensure success, it is recommended that students first take the A-TIPS' Linux Fundamentals course or have equivalent knowledge.

Course Material/Text Books

The students will receive an Oracle Application Server 10g handbook by McGraw-Hill Osborne.

Course Outline

Oracle Application Server 10g 8 Hours

- Identify attributes of grid technology
- Identify benefits of using Enterprise Manager Grid Control comprehensive management system
- Identify features of Oracle Application Server 10g (OracleAS)
- Identify components of the infrastructure server in OracleAS 10g
- Identify features of the Oracle Application Server 10g (OracleAS) 10g middle-tier architecture
- Identify features of Oracle HTTP Server and J2EE components in OracleAS
- Identify features of LDAP (Lightweight Directory Access Protocol)
- Identify features of OracleAS Web Services
- Identify features of OracleAS Portal
- Identify features of Oracle Application Server 10g (OracleAS) Reports Services
- Identify features of Oracle Application Server 10g Discoverer
- Identify guidelines for installing Oracle Application Server 10g (OracleAS) Infrastructure
- Identify the steps for installing OracleAS infrastructure
- Identify steps to configure Single Sign-On (SSO) Server
- Identify tasks to be performed for configuring Oracle Internet Directory (OID)
- Identify guidelines for installing OracleAS 10g middle tier
- Sequence the steps to start an OracleAS Infrastructure
- Identify tasks to be performed for configuring components after Oracle Application Server 10g (OracleAS) installation
- Identify features of user and group management in Oracle Internet Directory (OID)
- Identify features of password management in Oracle Internet Directory (OID)
- Identify advantages of using the OracleAS Farm page

Managing Oracle Application Server 10g 8 Hours

- Identify methods of managing Oracle Application Server (OracleAS) by using its Application Server Control (ASC)
- Identify characteristics of the Oracle Process Management and Notification (OPMN) server
- Identify characteristics of Distributed Configuration Management (DCM)
- Identify characteristics of OracleAS High Availability Tool (iHAT)
- Identify benefits of Oracle Internet Directory (OID)
- Identify tasks to be performed for OID administration
- Match OID command-line tools with their functions
- Identify modules of Oracle HTTP Server (OHS)
- Match the directives and commands for managing OHS with their descriptions
- Identify guidelines for configuring an Oracle HTTP server (OHS)
- Identify guidelines for controlling access to OHS
- Add an access log file to the server
- Identify features of directives
- Identify features of virtual hosts
- Sequence the steps to configure a virtual host
- Identify different types of aliases
- Identify features of Oracle Application Server 10g (OracleAS) Web Cache
- Identify guidelines for administering OracleAS Web Cache
- Identify the steps for configuring security settings of Oracle Application Server 10g (OracleAS) Web Cache
- Sequence the steps in configuring a listening port for handling incoming requests
- Sequence the steps to configure OracleAS Web Cache with an application Web server
- Configure and map a site definition
- Sequence the steps for creating a caching rule
- Sequence the steps to configure an access log

Configuring and Managing Oracle Containers for J2EE 8 Hours

- Identify options for managing Oracle Containers for J2EE (OC4J) instances
- Identify tasks to be performed for configuring Oracle Containers for J2EE (OC4J) instances
- Identify different properties of an Oracle Containers for J2EE (OC4J) instance
- Identify tasks to be performed for maintaining Oracle Containers for J2EE (OC4J) applications

- Identify methods for managing the Oracle 10g Application Server (OracleAS) Portal instance
- Identify tasks to be performed for managing Oracle 10g Application Server (OracleAS) Portal users
- Identify tasks to be performed for managing Oracle 10g Application Server (OracleAS) Portal groups
- Identify tasks to be performed for managing Oracle 10g Application Server (OracleAS) Portal schemas
- Identify tasks to be performed for managing portlet repository
- Sequence the steps to export a portal object
- Sequence the steps to import a portal object
- Sequence the steps to configure the self-registration feature in Oracle Application Server (OracleAS)Portal
- Match configuration parameters of OraDAV Support with their descriptions
- Match the MIDTIER mode types with their uses
- Match parameters of the ptlconfig script with their descriptions
- Match mod_plsql directives with their descriptions
- Identify features of the Database Access Descriptor (DAD) creation wizard
- Sequence the communication flow while invoking a PL/SQL application
- Match configuration files with their descriptions
- Identify ways of enabling and improving security of Common Gateway Interface (CGI) scripts
- Identify benefits of the mod_fastcgi module
- Identify tasks to be performed for managing database providers

Deployment of Web Application Modules 8 Hours

- Sequence the steps to deploy Web application modules
- Identify tasks to be performed for administering data sources
- Identify features of Enterprise JavaBeans (EJB)
- Deploy a J2EE application by using Application Server Control
- Sequence steps for publishing a J2EE application as a provider for a portal
- Identify benefits of identity management
- Identify features of Oracle Internet Directory (OID)
- Identify features of Identity Management Realms
- Match the OID protected domains in a hosted environment with their description
- Identify privileges associated with users and groups administration
- Identify ways of administering passwords
- Identify tasks to be performed for synchronizing OracleAS Portal and OID
- Identify features of Delegated Administration Service (DAS)
- Identify methods for starting and stopping Delegated Administration Service (DAS)
- Sequence the steps for configuring user entries using DAS
- Identify tasks to be performed for maintaining user entries by using the Delegated Administration Service (DAS)
- Identify steps to be performed for maintaining users using DAS
- Identify the steps to create group entries
- Identify tasks to be performed for maintaining groups using DAS
- Match portlets used for accessing DAS with their description
- Identify the features of DAS roles
- Match components of OracleAS Single Sign-On (SSO) with their descriptions
- Sequence the steps to start or stop a Single Sign-On (SSO) server
- Identify tasks to be performed for administering a Single Sign-On (SSO) Server
- Identify the tasks for administering partner applications
- Identify tasks to be performed for administering external applications
- Match sections in the SSO server-monitoring page with their uses
- Identify features of Secure Sockets Layer (SSL)
- Sequence the steps involved in using digital signatures
- Identify features of Oracle Wallet Manager
- Identify tasks to be performed for administering Oracle Wallets
- Identify tasks to be performed for exporting Oracle Wallets
- Identify tasks to be performed for adding user certificates
- Identify tasks to be performed for exporting trusted certificates
- Identify uses of mod_ossll directives
- Identify tasks to be performed for maintaining certificates using OracleAS Certificate Authority (OCA)

Oracle Database 10g : Introduction to SQL

Course Overview

In this course, learners will be introduced to the concepts of relational databases and the Oracle Database 10g database technology. Additionally, the learners will be introduced to the powerful SQL programming language and its features. The learners will also learn how to use the advanced features of SQL, such as advanced querying and reporting, schema objects, manipulating large data sets, storing and retrieving dates according to different time zones, the concepts of controlling access and privileges for schema objects and using advanced sub queries.

Duration

The total length of this course is 32 Hours

Course Objectives

Lesson objectives help students become comfortable with the course, and also provide a means to evaluate learning. Upon successful completion of this course, students will be able to:

- Match the different phases of system development life cycle (SDLC) with their features
- Identify features of an Entity Relationship (ER) model
- Identify features of Relational Database Management System (RDBMS)
- Identify the SQL statement to retrieve data from tables
- Identify arithmetic expressions used to perform operations on data
- Identify operators used to format results in SQL statements
- Identify features of single-row functions
- Match the character functions with their uses
- Match the number functions with their purpose
- Identify the use of natural joins to retrieve data from multiple tables
- Identify the use of an equijoin to retrieve data from multiple tables
- Identify the use of self-join to retrieve data from a table
- Identify the code for using the INSERT statement
- Identify the code for using the UPDATE statement
- Identify the code for using the DELETE statement
- Identify tasks to be performed for granting system privileges
- Identify tasks to be performed for granting object privileges
- Identify syntax for performing various tasks for maintaining columns
- Identify the code for retrieving data hierarchically from a table
- Identify the code for formatting hierarchical reports
- Identify features of regular expression functions

Pre-requisites/Audience

This course is intended for students who want to learn Oracle 10g Database and SQL Programming and want to become PL/SQL Developers, System Analysts, Technical Consultants, Forms Developers, Portal Developers, and Database Administrators.

Course Material/Text Books

The students will receive an Oracle Database 10g SQL Programming handbook by McGraw-Hill Osborne.

Course Outline

Database Management in Oracle 10g 3 Hours

- Match the different phases of system development life cycle (SDLC) with their features
- Identify features of an Entity Relationship (ER) model
- Identify features of Relational Database Management System (RDBMS)
- Identify the structural components of Oracle 10g
- Identify features of iSQL*Plus
- Identify options available in iSQL*Plus that help interacting with a script file
- Identify uses of various SQL statements

Basic SQL Statements 5 Hours

- Identify the SQL statement to retrieve data from tables
- Identify arithmetic expressions used to perform operations on data
- Identify operators used to format results in SQL statements
- Identify the use of the WHERE clause in restricting the result set of an SQL query
- Identify the uses of the comparison operators used in a WHERE clause to restrict the query results
- Identify the operators used in logical conditions to restrict query results

- Identify the rules of precedence associated with the WHERE clause
- Identify methods of sorting the result set of a query by using the ORDER BY clause
- Identify substitution variables that are used while retrieving data by using SQL statements

SQL Functions 4 Hours

- Identify features of single-row functions
- Match the character functions with their uses
- Match the number functions with their purpose
- Identify features of the date functions
- Identify features the functions used to convert data types
- Identify the use of nested functions in retrieving data from tables
- Identify features of general functions
- Identify features of conditional functions
- Identify features of types of group functions
- Identify guidelines for using the GROUP BY clause

Advanced SQL Statements 4 Hours

- Identify the use of natural joins to retrieve data from multiple tables
- Identify the use of an equijoin to retrieve data from multiple tables
- Identify the use of self-join to retrieve data from a table
- Identify the use of outer joins to retrieve data from multiple tables
- Identify the use of non-equijoins to retrieve data from multiple tables
- Identify features of Cartesian products
- Identify features of subqueries
- Identify the use of single-row subqueries to retrieve data from multiple tables
- Identify the use of multiple-row subqueries to retrieve data from multiple tables
- Identify features of the different types of set operators

DML and Schema Objects 6 Hours

- Identify the code for using the INSERT statement
- Identify the code for using the UPDATE statement
- Identify the code for using the DELETE statement
- Identify the code for using the MERGE statement for updating or inserting data into a table
- Identify ways of controlling transactions in SQL
- Identify guidelines for naming database objects
- Identify the syntax for creating a table
- Identify the syntax for defining constraints
- Identify the syntax for altering and dropping a table
- Identify features of views
- Identify syntax for performing various tasks for managing views
- Identify the syntax for creating a sequence
- Identify the syntax for modifying a sequence
- Identify the syntax for creating and dropping synonyms
- Identify features of indexes
- Identify the syntax for creating and dropping indexes
- Identify features of the data dictionary
- Identify the contents and usage of data dictionary views

Objects and Data Management 8 Hours

- Identify tasks to be performed for granting system privileges
- Identify tasks to be performed for granting object privileges
- Identify syntax for performing various tasks for maintaining columns
- Identify syntax for performing various tasks for managing constraints
- Identify the syntax of the FLASHBACK TABLE statement
- Identify the syntax for creating external tables
- Identify syntax for manipulating data using subqueries
- Identify features of Flashback Version Query that help in tracking data changes
- Identify the syntax of the unconditional INSERT ALL statement
- Identify the syntax of the conditional INSERT ALL statement
- Identify the syntax of the conditional INSERT FIRST statement
- Identify the syntax of the pivoting INSERT statement
- Identify features of the ROLLUP operator

- Identify features of the CUBE operator
- Identify features of the GROUPING function
- Identify features of the GROUPING SETS clause
- Identify features of a composite column
- Identify features of concatenated groupings
- Identify syntax for displaying dates in different formats
- Identify syntax for performing datetime conversions
- Identify syntax for performing multiple-column subqueries
- Identify syntax for performing scalar subqueries
- Identify the syntax for using correlated subqueries
- Identify the code for testing the existence and nonexistence of rows in the result set of a subquery
- Identify the syntax for performing correlated operations
- Identify features of the WITH clause used to perform correlated subqueries

Data Retrieval 2 Hours

- Identify the code for retrieving data hierarchically from a table
- Identify the code for formatting hierarchical reports
- Identify features of regular expression functions

Linux Fundamentals**Course Overview**

Students will install Linux, configure the X Window System, and learn to navigate the Linux command-line shell. Students will also learn fundamental concepts common to Linux: the kernel, Linux filesystem, boot process and runlevels, shell scripting, and editing text files..

Duration

The total length of this course is 24 Hours

Course Objectives

This courseware will provide students with the information they need to complete the following:

- Describe the structural components of Linux and what distinguishes a distribution of Linux.
- Describe Open Source Software and distinguish between GNU and GPL.
- Create installation boot diskettes.
- Install Linux distribution(s).
- Install and configure XFree86.
- Describe how to get online help.
- Configure fundamental system hardware.
- Use fdisk or cfdisk to create, edit, and delete disk partitions.
- Use LILO to manage boot options.
- Boot the system, change runlevels, and shut down or reboot the system.
- Describe the Linux hierarchical file system and the role of key directories in organizing system files.
- Work effectively on the Linux command line using common shell commands, streams, pipes, filters, and redirection.
- Use shell scripting to quickly perform repetitive tasks.
- Open, edit, and save text documents using the vi editor.

Pre-requisites/Audience

Students who have had some or no experience with Linux, but want to focus their learning by gaining an overview of the features of Linux, perhaps prepare for certification. Familiarity with the Linux or Unix command line is an advantage.

Course Material/Text Books

The students will receive a Linux Fundamentals Courseware by Element-K Courseware.

Course Outline**What is Linux? 2 Hours**

- Linux Network Operating System
- Multiple Users and Multitasking
- User Interfaces

- Linux Sessions

Installing Linux 3 Hours

- Knowledge
- Preparation
- Disk Allocation
- Booting
- Partitioning
- Copying Software
- Normal Finish
- Superuser
- Administration Shells
- Configuration
- Troubleshooting an Install

Configuring and Troubleshooting X 2 Hours

- The X Window System
- Running X Applications
- Resources

Installing Red Hat Linux 2 Hours

- Installing Red Hat Linux 6.0
- Installing Red Hat Linux 6.1

Installing TurboLinux 4.0 3 Hours

- Preparing for Installation
- Starting an Installation
- Continue the Installation
- Configure Network and Hardware Options
- Partition Disks
- Package and System Installation

Runlevels and Troubleshooting 2 Hours

- The Boot Process (LILO)
- Linux Runlevels
- The init Control file: /etc/inittab
- Run Command Scripts (Red Hat)

File System Fundamentals 2 Hours

- The File Hierarchical System
- Device Management

Navigation and the Linux Shell 2 Hours

- The bash Shell
- The Shell Environment
- Power Tools

Shell Processing and Scripting 2 Hours

- The Shell
- Command Input and Output
- Pipes and Filters
- Shell Scripts

Editing Text Files 2 Hours

- The vi Editor
- vi Concepts
- The vi Command
- vi Modes
- Alternatives to vi

Microsoft Certified Database Administrator

Course Overview

The Microsoft Certified Database Administrator (MCDBA) credential is the premier certification for professionals who can successfully implement and administer Microsoft SQL Server 2000 databases. SQL Server 2000 is a complete, Web-enabled database and data analysis package that facilitates the fast development of a new generation of enterprise-class business applications that can give their company a critical competitive advantage. SQL Server provides support for XML, querying across the Internet, and beyond the firewall.

Duration

The total length of this course is 144 Hours

Certification Track

Exam	Course
70-228	Installing, Configuring, and Administering Microsoft SQL Server 2000 Enterprise Edition
70-229	Designing and Implementing Databases with Microsoft SQL Server 2000 Enterprise Edition
70-291	Maintaining, Managing and Implementing Windows 2003 Network Infrastructure
70-293	Maintaining and Planning Windows 2003 Network Infrastructure

Installing, Configuring, and Administering Microsoft SQL Server 2000 Enterprise Edition (Exam 70-228)

Course Overview

In this course, students will explore the features of Microsoft SQL Server 2000, including how to install Microsoft SQL Server 2000, create and administer databases, configure security on SQL Server, transfer data between SQL servers, configure XML support, backup and restore databases, manage replication between SQL servers, and optimize the performance of SQL Server.

Duration

The total length of this course is 32 Hours

Course Objectives

After completing this course, students will be able to:

- Understand the capabilities of Microsoft SQL Server 2000
- Install Microsoft SQL Server
- Design, create, and manage databases
- Create and manage database objects
- Design and configure security on SQL Server
- Transfer data between SQL servers and configure XML support
- Back up an SQL server's databases
- Restore database backups
- Automate administrative tasks
- Design, implement, and manage replication between SQL servers
- Configure fault-tolerance through Failover Clustering and standby servers
- Optimize the performance of SQL Server

Pre-requisites/Audience

The target audience for this course includes individuals who are either employed by, or who are seeking employment as, a Network Administrator or Database Administrator and Developer. The entry criterion for this course includes individuals who are entry-level IT professionals, new to hands-on Windows server and network administration. Before attending this course, some knowledge of SQL Server 2000 is an advantage.

Course Material/Text Books

The students will receive an MCDBA Certification Courseware by Microsoft Press. Microsoft Press courseware is the definitive source for Microsoft learning. In addition, students will also have their own copy of A-TIPS' Sample Questions and Microsoft Certified practice tests for the MCDBA exam.

Vouchers And Testing

Each MCP student will receive a complimentary test voucher. No additional payment is necessary for the voucher. The MCP exam is delivered at the Training Center, which is an authorized VUE Testing Center. A test administrator will be available throughout the day, and in the evening, to register students for the test.

Course Outline

SQL Server Overview 2 Hours

- What Is SQL Server
- SQL Server Integration
- SQL Server Databases
- SQL Server Security
- Working with SQL Server

Planning to Install SQL Server 3 Hours

- Hardware Installation Considerations
- SQL Server 2000 Editions
- Software Installation Considerations
- Methods of Installing SQL Server
- Verifying the Installation
- Configuring SQL Server Enterprise Manager
- Troubleshooting

Managing Database Files 3 Hours

- Introduction to Data Structures
- Creating Databases
- Managing Databases
- Placing Database Files and Logs
- Optimizing the Database Using Hardware-based RAID
- Optimizing the Database Using Filegroups
- Optimizing the Database Using Filegroups with Hardware-based RAID
- Capacity Planning
- Performance Considerations

Managing Security 3 Hours

- Implementing an Authentication Mode
- Assigning Logins to Users and Roles
- Assigning Permissions to Users and Roles
- Managing Security Within SQL Server
- Managing Application Security
- Managing SQL Server Security in the Enterprise

Performing Administrative Tasks 3 Hours

- Configuration Tasks
- Routine SQL Server Administrative Tasks
- Automating Routine Maintenance Tasks
- Creating Alerts
- Troubleshooting SQL Server Automation
- Automating Multiserver Jobs

Backing Up Databases 3 Hours

- Preventing Data Loss
- Setting and Changing a Database Recovery Model
- SQL Server Backup
- When to Back Up Databases

- Performing Backups
- Types of Backup Methods
- Planning a Backup Strategy
- Performance Considerations

Restoring Databases 3 Hours

- SQL Server Recovery Process
- Preparing to Restore a Database
- Restoring Backups
- Restoring Databases from Different Backup Types
- Restoring Damaged System Databases

Monitoring SQL Server for Performance 3 Hours

- Why to Monitor SQL Server
- Performance Monitoring and Tuning
- Tools for Monitoring SQL Server
- Common Monitoring and Tuning Tasks

Transferring Data 3 Hours

- Introduction to Transferring Data
- Tools for Importing and Exporting Data in SQL Server
- Introduction to DTS
- Transforming Data with DTS

Maintaining High Availability 3 Hours

- Introduction to Availability
- Increasing Availability Using Failover Clustering
- Standby Servers and Log Shipping

Introducing Replication 3 Hours

- Introduction to Distributed Data
- Introduction to SQL Server Replication
- SQL Server Replication Agents
- SQL Server Replication Types
- Physical Replication Models

Designing and Implementing Databases with Microsoft SQL Server 2000 Enterprise Edition (Exam 70-229)

Course Overview

In this course, students will explore a number of skills related to Microsoft SQL Server 2000, with emphasis on structure and design of databases.

Duration

The total length of this course is 48 Hours

Course Objectives

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

- Discuss and identify key components and concepts of SQL servers
- Explore Transact-SQL
- Design and implement databases
- Create and manage tables
- Design data integrity
- Implement indexes
- Join tables
- Query multiple tables through the use of joins
- Design subqueries
- Use aggregate functions in queries
- Create and manage views

- Design and implement stored procedures
- Create triggers
- Manage transactions and locks
- Implement queries across multiple servers

Pre-requisites/Audience

The target audience for this course includes individuals who are either employed by, or who are seeking employment as, a Network Administrator or Database Administrator and Developer. The entry criterion for this course includes individuals who are entry-level IT professionals, new to hands-on Windows server and network administration. Before attending this course, some knowledge of SQL Server 2000 is an advantage.

Course Material/Text Books

The students will receive both MCDBA Certification Courseware by Microsoft Press. Microsoft Press courseware is the definitive source for Microsoft learning. In addition, students will also have their own copy of A-TIPS' Sample Questions and Microsoft Certified practice tests for the MCDBA exam.

Vouchers And Testing

Each MCP student will receive a complimentary test voucher. No additional payment is necessary for the voucher. The MCP exam is delivered at the Training Center, which is an authorized VUE Testing Center. A test administrator will be available throughout the day, and in the evening, to register students for the test.

Course Outline

Introduction to Transact-SQL 2 Hours

- The Transact-SQL Programming Language
- Types of Transact-SQL Statements
- Transact-SQL Syntax Elements
- Using SQL Server Books Online

Using Transact-SQL Querying Tools 2 Hours

- SQL Query Analyzer
- Using the Object Browser Tool in SQL Query Analyzer
- Using the osql Utility
- Executing Transact-SQL Statements
- Creating and Executing Transact-SQL Scripts

Retrieving Data 2 Hours

- Retrieving Data by Using the SELECT Statement
- Filtering Data
- Formatting Result Sets
- How Queries Are Processed
- Performance Considerations
- Retrieving Data and Manipulating Result Sets

Grouping and Summarizing Data 2 Hours

- Listing the TOP n Values
- Using Aggregate Functions
- GROUP BY Fundamentals
- Generating Aggregate Values Within Result Sets
- Using the COMPUTE and COMPUTE BY Clauses
- Grouping and Summarizing Data

Joining Multiple Tables 2 Hours

- Using Aliases for Table Names
- Combining Data from Multiple Tables
- Combining Multiple Result Sets
- Querying Multiple Tables

Working with Subqueries 2 Hours

- Introduction to Subqueries
- Using a Subquery as a Derived Table

- Using a Subquery as an Expression
- Using a Subquery to Correlate Data
- Using the EXISTS and NOT EXISTS Clauses
- Working with Subqueries

Modifying Data 2 Hours

- Using Transactions
- Inserting Data
- Deleting Data
- Updating Data
- Performance Considerations
- Modifying Data

Querying Full-Text Indexes 2 Hours

- Introduction to Microsoft Search Service
- Microsoft Search Service Components
- Getting Information About Full-Text Indexes
- Writing Full-Text Queries
- Querying Full-Text Indexes

Introduction to Programming Objects 2 Hours

- Displaying the text of a programming object
- Introduction to Views
- Advantages of Views
- Creating Views
- Introduction to Stored Procedures
- Introduction to Triggers
- Introduction to User-defined Functions
- Working with Views

SQL Server Overview 2 Hours

- What Is SQL Server?
- SQL Server Integration
- SQL Server Databases
- SQL Server Security
- Working with SQL Server

Overview of Programming SQL Server 2 Hours

- Designing Enterprise Application Architecture
- SQL Server Programming Tools
- The Transact-SQL Programming Language
- Elements of Transact-SQL
- Additional Language Elements
- Ways to Execute Transact-SQL Statement

Creating and Managing Databases 2 Hours

- Creating Databases
- Creating Filegroups
- Managing Databases
- Introduction to Data Structures

Creating Data Types and Tables 2 Hours

- Creating Data Types
- Creating Tables
- Generating Column Values
- Generating Scripts

Implementing Data Integrity 2 Hours

- Types of Data Integrity
- Enforcing Data Integrity
- Defining Constraints

- Types of Constraints
- Disabling Constraints
- Using Defaults and Rules
- Deciding Which Enforcement Method to Use

Planning Indexes 2 Hours

- Introduction to Indexes
- Index Architecture
- How SQL Server Retrieves Stored Data
- How SQL Server Maintains Index and Heap Structures
- Deciding Which Columns to Index

Creating and Maintaining Indexes 2 Hours

- Creating Indexes
- Creating Index Options
- Maintaining Indexes
- Introduction to Statistics
- Querying the sysindexes Table
- Setting Up Indexes Using the Index Tuning Wizard
- Performance Considerations

Implementing Views 2 Hours

- Introduction to Views
- Advantages of Views
- Defining Views
- Modifying Data Through Views
- Optimizing Performance by Using Views
- Performance Considerations

Implementing Stored Procedures 2 Hours

- Introduction to Stored Procedures
- Creating, Executing, Modifying, and Dropping Stored Procedures
- Using Parameters in Stored Procedures
- Executing Extended Stored Procedures
- Handling Error Messages
- Performance Considerations

Implementing User-defined Functions 2 Hours

- What Is a User-defined Function?
- Defining User-defined Functions
- Examples of User-defined Functions

Implementing Triggers 2 Hours

- Introduction to Triggers
- Defining Triggers
- How Triggers Work
- Examples of Triggers
- Performance Considerations

Programming Across Multiple Servers 2 Hours

- Introduction to Distributed Queries
- Executing an Ad Hoc Query on a Remote Data Source
- Setting Up a Linked Server Environment
- Executing a Query on a Linked Server
- Managing Distributed Transactions
- Modifying Data on a Linked Server
- Using Partitioned Views

Optimizing Query Performance 2 Hours

- Introduction to the Query Optimizer
- Obtaining Execution Plan Information
- Using an Index to Cover a Query

- Indexing Strategies
- Overriding the Query Optimizer

Analyzing Queries 2 Hours

- Queries That Use the AND Operator
- Queries That Use the OR Operator
- Queries That Use Join Operations

Managing Transactions and Locks 2 Hours

- Introduction to Transactions and Locks
- Managing Transactions
- SQL Server Locking
- Managing Locks

Maintaining, Managing and Implementing Windows 2003 Network Infrastructure (Exam 70-291)

Course Overview

This instructor-led course provides students with the knowledge and skills to implement, manage, and maintain a Microsoft Windows Server™ 2003 network infrastructure. The course is intended for systems administrator and systems engineer candidates who are responsible for implementing, managing, and maintaining server networking technologies. These tasks include implementing routing; implementing, managing, and maintaining Dynamic Host Configuration Protocol (DHCP), Domain Name System (DNS), and Windows Internet Name Service (WINS); securing Internet Protocol (IP) traffic with Internet Protocol security (IPSec) and certificates; implementing a network access infrastructure by configuring the connections for remote access clients; and managing and monitoring network access.

Duration

The total length of this course is 32 Hours

Course Objectives

- Configure routing by using the Routing and Remote Access service.
- Allocate IP addressing by using DHCP.
- Manage and monitor DHCP.
- Resolve names.
- Resolve host names by using DNS.
- Manage and monitor DNS.
- Resolve network basic input/output system (NetBIOS) names by using WINS.
- Secure network traffic by using IPSec and certificates.
- Configure network access.
- Manage and monitor network access.

Pre-requisites/Audience

The target audience for this course includes individuals who are either employed by, or who are seeking employment as, a Systems Administrator. The entry criterion for this course includes individuals who are entry-level IT professionals, new to hands-on Windows server and network administration. Before attending this course, students must have CompTIA A+ Certification or CompTIA Network+ Certification or completed A-TIPS' Managing a Microsoft Windows Server 2003 Environment course or equivalent knowledge.

Course Material/Text Books

The students will receive both MCSE/MCSA Certification Courseware by Microsoft Press. Microsoft Press courseware is the definitive source for Microsoft learning. In addition, students will also have their own copy of A-TIPS' Sample Questions and Microsoft Certified practice tests for the MCSE/MCSA exam.

Vouchers And Testing

Each MCP student will receive a complimentary test voucher. No additional payment is necessary for the voucher. The MCP exam is delivered at the Training Center, which is an authorized VUE Testing Center. A test administrator will be available throughout the day, and in the evening, to register students for the test.

Course Outline

Reviewing the Suite of TCP/IP Protocols 2 Hours

- Overview of the OSI Model
- Overview of the TCP/IP Protocol Suite
- Viewing Frames Using Network Monitor

Assigning IP Addresses in a Multiple Subnet Network 2 Hours

- Assigning IP Addresses
- Creating a Subnet
- Creating Subnets Using VLSM
- Creating Subnets Using CIDR
- Using IP Routing Tables

Configuring a Client IP Address 2 Hours

- Configuring a Client to Use a Static IP Address
- Configuring a Host to Obtain an IP Address Automatically
- Using Alternate Configuration

Configuring a Client for Name Resolution 2 Hours

- Resolving Client Names
- Managing the Address Resolution Protocol (ARP) Cache
- Overview of NetBIOS
- Using Static Naming Methods
- Using Dynamic Naming Methods
- Summarizing the Name Resolution Process

Isolating Common Connectivity Issues 2 Hours

- Isolating Common Connectivity Issues
- Using Utilities and Tools to Isolate Connectivity Issues

Configuring Routing by Using Routing and Remote Access 2 Hours

- Installing and Configuring the Routing and Remote Access Service
- Configuring Packet Filters

Allocating IP Addressing by Using Dynamic Host Configuration Protocol 3 Hours

- Adding and Authorizing a DHCP Server Service
- Configuring a DHCP Scope
- Configuring a DHCP Reservation
- Configuring DHCP Options
- Configuring a DHCP Relay Agent

Managing and Monitoring Dynamic Host Configuration Protocol (DHCP) 2 Hours

- Overview of Managing and Monitoring DHCP
- Managing a DHCP Database
- Viewing DHCP Statistics
- Monitoring DHCP Server Performance by Using the DHCP Audit Log
- Monitoring DHCP Server Performance by Using the Performance Console

Resolving Names 2 Hours

- Configuring Names on a Client
- Configuring Host Name Resolution
- Configuring NetBIOS Name Resolution

Resolving Host Names by Using Domain Name System (DNS) 2 Hours

- Installing the DNS Server Service
- Configuring the Properties for the DNS Server Service
- Configuring the DNS Zones
- Configuring a DNS Client
- Configuring DNS Dynamic Updates
- Configuring DNS Zone Transfers

- Delegating Authority for Zones

Managing and Monitoring Domain Name System 3 Hours

- Configuring the Time to Live Interval
- Configuring Aging and Scavenging
- Integrating DNS and WINS
- Verifying that a Resource Record Exists by Using Nslookup, DNSCMD, and DNSLint
- Testing the DNS Server Configuration
- Monitoring DNS Server Performance by Using the Performance Console
- Monitoring DNS Server Performance by Using the DNS Logging

Resolving NetBIOS Names by Using Windows Internet Naming Service 2 Hours

- Installing and Configuring a WINS Server
- Configuring the WINS Server
- Managing Records in WINS
- Configuring WINS Replication
- Managing the WINS database

Securing Network Traffic by Using IPSec and Certificates 2 Hours

- Implementing IPSec
- Implementing IPSec with Certificates
- Monitoring IPSec

Configuring Network Access 2 Hours

- Introduction to a Network Access Infrastructure
- Configuring a VPN Connection
- Configuring a Dial-up Connection
- Configuring a Wireless Connection
- Controlling User Access to a Network
- Centralizing Network Access Authentication and Policy Management by Using IAS

Managing and Monitoring Network Access 2 Hours

- Managing the Network Access Services
- Configuring Logging on a Network Access Server
- Collecting and Monitoring Network Access Data

Maintaining and Planning Windows 2003 Network Infrastructure (Exam 70-293)

Course Overview

The goal of this course is to provide students with the knowledge and skills necessary to plan and maintain a Windows Server 2003 network infrastructure.

Duration

The total length of this course is 32 Hours

Course Objectives

- Plan a TCP/IP physical and logical network.
- Plan and troubleshoot a routing strategy.
- Plan a Dynamic Host Configuration Protocol (DHCP) strategy.
- Optimize and troubleshoot DHCP.
- Plan a Domain Name System (DNS) strategy.
- Optimize and troubleshoot DNS.
- Plan and optimize Windows Internet Naming Service (WINS).
- Plan, optimize, and troubleshoot IPSec network access.
- Troubleshoot network access.

Pre-requisites/Audience

This course is appropriate for individuals who are employed or seeking a position as a systems engineer. This course is also appropriate for individuals who currently support a competitive platform who want to enhance their skills using Windows Server 2003 Active Directory. Before attending this course, students

must have taken A-TIPS' Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure course, or have equivalent knowledge and skills.

Course Material/Text Books

The students will receive both MCSE/MCSA Certification Courseware by Microsoft Press. Microsoft Press courseware is the definitive source for Microsoft learning. In addition, students will also have their own copy of A-TIPS' Sample Questions and Microsoft Certified practice tests for the MCSE/MCSA exam.

Vouchers And Testing

Each MCP student will receive a complimentary test voucher. No additional payment is necessary for the voucher. The MCP exam is delivered at the Training Center, which is an authorized VUE Testing Center. A test administrator will be available throughout the day, and in the evening, to register students for the test.

Course Outline

Introducing Windows Server 2003 Network Infrastructure Planning, Tools, and Documentation 3 Hours

- Planning a Windows Server 2003 Network
- Preparing Development and Test Environment
- Changing the Environment
- Introducing the Network Design Document

Planning and Optimizing a TCP/IP Physical and Logical Network 3 Hours

- Reviewing TCP/IP
- Planning a Functional TCP/IP Solution
- Optimizing Network Performance

Planning and Troubleshooting Routing 3 Hours

- Reviewing Routing
- Selecting Intermediate Devices
- Planning an Internet Connectivity Strategy
- Planning Routing Communications
- Troubleshooting TCP/IP Routing

Planning a DHCP Strategy 2 Hours

- How DHCP Operates in an Enterprise Environment
- Planning a DHCP Strategy
- Securing a DHCP Strategy

Optimizing and Troubleshooting DHCP 3 Hours

- Determining the Need to Optimize DHCP Performance
- Optimizing DHCP
- Troubleshooting DHCP

Planning a DNS Strategy 3 Hours

- Planning a Namespace
- Planning Zones
- Planning Zone Replication and Delegation
- Planning a DNS Server

Optimizing and Troubleshooting DNS 3 Hours

- Optimizing the DNS Server
- Troubleshooting Host Name Resolution

Planning and Optimizing WINS 3 Hours

- Reviewing WINS
- Planning a WINS Solution
- Identifying WINS Optimization Requirements
- Optimizing WINS Traffic

Planning and Troubleshooting IPSec 3 Hours

- Reviewing IPSec

- Understanding the Default Policy Rules
- Planning an IPSec Deployment
- Troubleshooting IPSec Communications

Planning Network Access 3 Hours

- Reviewing Network Access
- Selecting Network Access Connection Methods
- Selecting a Remote Access Policy Strategy
- Selecting a Network Access Authentication Method
- Selecting a Network Access Strategy

Troubleshooting Network Access 3 Hours

- Network Access Troubleshooting Resources
- Troubleshooting LAN Authentication
- Troubleshooting Remote Access

Microsoft Certified Solution Developer

Course Overview

MCSD (Microsoft Certified Solution Developer) is the premier credential for lead developers who design and develop leading-edge enterprise solutions with Microsoft development tools, technologies and platforms. The MCSD credential is one of the most widely recognized technical certifications in the industry.

Duration

The total length of this course is 172 Hours

Certification Track

Exam	Course
70-305	Developing and Implementing Web Applications with Microsoft Visual Basic® .NET and Microsoft Visual Studio® .NET
70-306	Developing and Implementing Windows-based Applications with Microsoft Visual Basic .NET and Microsoft Visual Studio .NET
70-310	Developing XML Web Services and Server Components with Microsoft Visual Basic .NET and the Microsoft .NET Framework
70-300	Analyzing Requirements and Defining Microsoft .NET Solution Architectures
70-229	Designing and Implementing Databases with Microsoft SQL Server™ 2000 Enterprise Edition

Developing and Implementing Web Applications with Microsoft Visual Basic.NET and Microsoft Visual Studio.NET (Exam 70-305)

Course Overview

This course introduces Microsoft Visual Studio .NET, and ASP.NET Web application projects. The learner is given an overview of the .NET language features, and VB.NET components. Also, the learner is guided through the use of Web forms and controls.

Duration

The total length of this course is 32 Hours

Course Objectives

- Identify features of .NET Framework components.
- Identify benefits of the .NET Framework.
- Match features of ASP.NET Web application components with their descriptions.
- Identify benefits of multiple-language support.
- Match components of Common Language Runtime (CLR) with their functions.
- Sequence the stages in the runtime compile and execute process.
- Match Web Form attributes with their functions.
- Identify methods of creating a Web Form.
- Convert an HTML page to a Web Form.
- Identify features of event procedures.
- Identify the syntax for creating an event procedure.
- Sequence the steps for adding an event procedure to a Web control.
- Identify features of structured exception handling.
- Identify the syntax of Try/Catch/Finally.
- Identify the syntax for configuring custom error pages.
- Identify features of ADO.NET.
- Identify the syntax for importing ADO.NET namespaces.
- Identify features of the ADO.NET object model.
- Identify features of SQL Server security authentication.
- Match connection string parameters with their functions.
- Identify characteristics of a DataAdapter.
- Identify features of XML.
- Match XML core technologies with their functions.
- Identify the syntax for linking Extensible Stylesheet Language Transformation (XSLT) stylesheets to XML documents.
- Match state management types with their features.
- Identify characteristics of server-side state management.
- Identify characteristics of client-side state management.
- Identify features of the Cache object.
- Identify the syntax for using the Cache object.
- Match output cache types with their functions.
- Identify features of authentication methods.
- Match Internet Information Services (IIS) authentication methods with their features.
- Identify functions of Secure Sockets Layer (SSL).

Pre-requisites/Audience

This course is designed for beginning Web developers and Microsoft Visual Basic developers who want to learn Visual Studio .NET and ASP.NET. Beginner Web developers have minimal experience with programming. However, they know the basic constructs of programming, such as loops and conditional statements. Participants in this course possibly work on a team in a medium or large development environment that uses Microsoft Visual Studio .NET, Enterprise Developer Edition. This course is suitable for Web developers who have knowledge of Hypertext Markup Language (HTML) or dynamic HTML (DHTML), along with some knowledge of a scripting language, such as Visual Basic Scripting Edition or Microsoft JScript.

Course Material/Text Books

The students will receive an MCSD Certification Courseware by Microsoft Press. Microsoft Press courseware is the definitive source for Microsoft learning. In addition, students will also have their own copy of A-TIPS' Sample Questions and Microsoft Certified practice tests for the MCSD exam.

Vouchers And Testing

Each MCP student will receive a complimentary test voucher. No additional payment is necessary for the voucher. The MCP exam is delivered at the Training Center, which is an authorized VUE Testing Center. A test administrator will be available throughout the day, and in the evening, to register students for the test.

Course Outline

Microsoft Visual Studio .NET Overview 4 Hours

- Identify features of .NET Framework components.
- Identify benefits of the .NET Framework.
- Match features of ASP.NET Web application components with their descriptions.

- Match ASP.NET execution model features with their functions.
- Identify benefits of Visual Studio .NET.
- Identify features of the Visual Studio .NET Start Page.
- Match Visual Studio .NET project types with their functions.
- Match Visual Studio .NET Integrated Development Environment (IDE) features with their functions.
- Sequence the steps to develop an ASP.NET Web application.
- Identify functions of ASP.NET Web application files.
- Implement an ASP.NET Web application project task.
- Identify the steps to execute an ASP.NET Web application project.

Microsoft .NET Programming Languages 7 Hours

- Identify benefits of multiple-language support.
- Match components of Common Language Runtime (CLR) with their functions.
- Sequence the stages in the runtime compile and execute process.
- Identify syntax for using a namespace.
- Identify features of Microsoft C#.
- Identify new features of Visual Basic .NET (VB.NET).
- Identify syntax for translating from Visual C# to Visual Basic .NET (VB.NET).
- Identify syntax for declaring variables in Visual Basic .NET (VB.NET).
- Identify syntax for using variables in Visual Basic .NET (VB.NET).
- Identify the syntax of functions.
- Identify features of compiler Option Strict and Option Explicit settings.
- Identify features of classes.
- Create a class.
- Sequence the steps to use a COM, COM+, or ActiveX control component in .NET.
- Sequence the steps for using a .NET component.
- Sequence the stages in the platform invoke process.

Microsoft Web Forms and Server Controls 7 Hours

- Match Web Form attributes with their functions.
- Identify methods of creating a Web Form.
- Convert an HTML page to a Web Form.
- Identify features of an ASP.NET server control.
- Match ASP.NET server control types with their functions.
- Identify considerations for selecting an appropriate ASP.NET server control.
- Identify the syntax for saving the view state of Web controls.
- Sequence the steps to convert an HTML control to an HTML server control.
- Identify the syntax for implementing SmartNavigation.
- Set properties for Web server controls in Visual Studio .NET.
- Add a Calendar control to a Web Form.
- Identify the syntax used to dynamically create a control in an ASP.NET Web Form

Microsoft ASP.NET Web Forms Code 7 Hours

- Identify features of event procedures.
- Identify the syntax for creating an event procedure.
- Sequence the steps for adding an event procedure to a Web control.
- Identify the syntax used for control interaction within an event procedure.
- Match Web Form coding options with their descriptions.
- Identify features of code-behind pages.
- Match @Page Directive attributes with their functions.
- Sequence the stages in a page event life cycle.
- Identify the order of events for given scenarios.
- Identify the syntax for handling a page postback event.
- Identify the syntax for reading Uniform Resource Locator (URL) parameters in a Page_Load event.
- Identify the syntax for linking controls.

Error Handling, Debugging and Validation 7 Hours

- Identify features of structured exception handling.
- Identify the syntax of Try/Catch/Finally.
- Identify the syntax for configuring custom error pages.
- Identify syntax for error handling in ASP.NET.
- Match .NET error types with their descriptions.

- Identify features of debugging configuration options.
- Sequence the steps to perform stepwise debugging in Visual Studio .NET.
- Sequence the steps for testing a unit.
- Identify types of information available at runtime.
- Match Debug class methods with their functions.
- Identify functions of the Trace class.
- Identify the syntax for enabling page-level tracing.
- Identify the syntax for enabling application-level tracing.
- Match trace result categories with their descriptions.
- Identify the syntax for tracing into a component.
- Identify features of user input validation in ASP.NET.
- Identify features of input validation types in ASP.NET.
- Match ASP.NET validation controls with their functions.
- Sequence the steps to add a validation control to a Web Form.
- Identify considerations for validation control feedback
- Identify considerations for combining validation controls.
- Match validation control properties with their functions.
- Match RegularExpression control characters with their definitions.
- Identify the steps for using a CustomValidator control.
- Identify characteristics of the Page.IsValid property.
- Identify characteristics of the ValidationSummary control.
- Identify characteristics of user controls.
- Sequence the steps for creating a user control.
- Identify the steps for converting a Web Form to a user control.
- Identify the syntax for adding a user control to a Web Form.

Developing and Implementing Windows-based Applications with Microsoft Visual Basic .NET and Microsoft Visual Studio .NET (Exam 70-306)

Course Overview

This four-day instructor-led course provides students with the skills required to build Microsoft® Windows® Forms applications by using the Microsoft .NET Framework. This course is a part of the Microsoft Visual Basic .NET curriculum and is intended to provide Visual Basic programmers with the skills required to create Windows Forms applications by using the .NET Framework. The course will cover the major topics for Windows client application programming on the .NET Framework. These topics include: Windows Forms, GDI+, simple data access, interoperating with unmanaged code, threading and asynchronous programming issues, simple remoting, Web access, XML Web services consumption, debugging, security, and deployment issues for desktop applications. It also provides students with the knowledge and skills to effectively build scalable, distributed applications that use Microsoft .NET Enterprise Services and the Microsoft .NET Framework.

Duration

The total length of this course is 30 Hours

Course Objectives

After completing this course, students will be able to:

- Create and populate Windows Forms.
- Organize controls on Windows Forms.
- Create menus in a Windows Forms application.
- Add code to form and control event procedures in a Windows Forms application.
- Create Multiple Document Interface (MDI) applications.
- Use dialog boxes in Windows Forms applications.
- Validate user input in a Windows Forms application.
- Create and use user controls in a Windows Forms application.
- Create licenses for controls.
- Bind Windows Forms applications to various data sources by using Microsoft ADO.NET.
- Consume XML Web services from Windows Forms applications.
- Use .NET and COM components in a Windows Forms application.
- Call Microsoft Win32® APIs from a Windows Forms application.
- Migrate Visual Basic 6.0 applications to Visual Basic .NET.
- Print documents in a Windows Forms application.

- Make asynchronous calls to methods from a Windows Forms application.
- Debug a Windows Forms application.
- Incorporate accessibility features in a Windows Forms application.
- Localize a Windows Forms application.
- Add support for Help to localize a Windows Forms application.
- Create Help files in a Windows Forms application.
- Deploy a Windows Forms application.
- Implement code access and role-based security in a Windows Forms application.
- Add deployment flexibility to applications by using shared assemblies.

Pre-requisites/Audience

This course is intended for the intermediate programmer who is responsible for designing and building Windows-based applications with the .NET Framework. It is designed for developers who have Visual Basic development skills. Students are required to have the following skills:

- Experience with a .NET language such as Visual Basic .NET
- Experience developing basic applications with MFC and/or Microsoft Visual Basic 6.0

Course Material/Text Books

The students will receive an MCSD Certification Courseware by Microsoft Press. Microsoft Press courseware is the definitive source for Microsoft learning. In addition, students will also have their own copy of A-TIPS' Sample Questions and Microsoft Certified practice tests for the MCSD exam.

Vouchers And Testing

Each MCP student will receive a complimentary test voucher. No additional payment is necessary for the voucher. The MCP exam is delivered at the Training Center, which is an authorized VUE Testing Center. A test administrator will be available throughout the day, and in the evening, to register students for the test.

Course Outline

Introducing Windows Forms 3 Hours

- Creating a Form
- Adding Controls to a Form
- Creating an Inherited Form
- Organizing Controls on a Form
- Creating MDI Applications

Working With Controls 3 Hours

- Creating an Event Handler for a Control
- Using Windows Forms Controls
- Using Dialogs
- Validating User Input
- Creating Controls at Run Time
- Creating Menus

Building Controls 3 Hours

- Options for Creating Controls
- Adding Functionality to Controls
- Adding Design-Time Support for Controls
- Licensing a Control

Using Data in Windows Forms Applications 3 Hours

- Adding ADO.NET Objects to a Windows Forms Application
- Accessing and Modifying Data by Using DataSets
- Binding Data to Controls
- Using the DataGrid Control
- Overview of XML Web Services
- Creating a Simple XML Web Services Client

Interoperating with COM Objects 3 Hours

- Using .NET and COM Components in a Windows Forms Application

- Calling Win32 APIs from Windows Forms Applications

Reporting and Printing in Windows Forms Applications 3 Hours

- Creating Reports Using Crystal Reports
- Printing From a Windows Forms Application
- Using the Print Preview, Page Setup, and Print Dialogs
- Constructing Print Document Content Using GDI+

Asynchronous Programming 3 Hours

- The .NET Asynchronous Programming Model
- The Asynchronous Programming Model Design Pattern
- How to Make Asynchronous Calls to Methods

Enhancing the Usability of Applications 3 Hours

- Adding Accessibility Features
- Adding Help to an Application
- Localizing an Application

Deploying Windows Forms Applications 3 Hours

- .NET Assemblies
- Deploying Windows Forms Applications

Securing Windows Forms Applications 3 Hours

- Security in the .NET Framework
- Using Code Access Security
- Using Role-Based Security

Developing XML Web Services and Server Components with Microsoft Visual Basic .NET and the Microsoft .NET Framework (Exam 70-310)

Course Overview

The goal of this course is to provide students with the knowledge and skills that are required to develop Extensible Markup Language (XML) Web services-based solutions to solve common problems in the distributed application domain. The course focuses on using Microsoft Visual Studio® .NET and Microsoft ASP.NET to enable students to build, deploy, locate, and consume Web services.

Duration

The total length of this course is 30 Hours

Course Objectives

At the end of the course, students will be able to:

- Explain how XML Web services emerged as a solution to the problems with traditional approaches to designing distributed applications.
- Describe the architecture of an XML Web services-based solution.
- Describe the underlying technologies of XML Web services and explain how to use the Microsoft .NET Framework to implement XML Web services by using these technologies.
- Implement an XML Web service consumer by using Microsoft Visual Studio .NET.
- Implement a simple XML Web service by using Visual Studio .NET.
- Publish and deploy an XML Web service.
- Secure an XML Web service.
- Implement caching in an XML Web service.
- Evaluate the trade-offs and issues that are involved in designing a real-world XML Web service.
- Implement nonstandard XML Web services such as Hypertext Markup Language (HTML) screen scraping and aggregating XML Web services.

Pre-requisites/Audience

This course is intended for experienced software developers who have previously built component-based applications. Before attending this course, students must have:

- Familiarity with C# or Microsoft Visual Basic® .NET.
- Programming in C++, Java, or Microsoft Visual Basic.

- An understanding of how to read and write XML documents.
- Experimented with simple C# applications.
- Developed distributed applications by using Visual Basic, Java, or C++

Course Material/Text Books

The students will receive an MCSD Certification Courseware by Microsoft Press. Microsoft Press courseware is the definitive source for Microsoft learning. In addition, students will also have their own copy of A-TIPS' Sample Questions and Microsoft Certified practice tests for the MCSD exam.

Vouchers And Testing

Each MCP student will receive a complimentary test voucher. No additional payment is necessary for the voucher. The MCP exam is delivered at the Training Center, which is an authorized VUE Testing Center. A test administrator will be available throughout the day, and in the evening, to register students for the test.

Course Outline

The Need for XML Web Services 2 Hours

- Describing the evolution of distributed applications. Identifying the problems with traditional distributed application architectures and technologies.
- Describing XML Web services and briefly explaining how they address the design problems in traditional distributed applications.
- Listing the alternate options for distributed application development.
- Identifying the kinds of scenarios where XML Web services are an appropriate solution.

XML Web Service Architectures 2 Hours

- Identifying how XML Web service architectures are a type of service-oriented architecture.
- Describing the elements of an XML Web service architecture and explaining their roles.
- Describing the XML Web service programming model.

The Underlying Technologies of XML Web Services 2 Hours

- Describing the structures of a Hypertext Transfer Protocol (HTTP) request and response.
- Issuing HTTP POST and GET requests and processing the responses by using the .NET Framework.
- Describing data types by using the XML Schema Definition language (XSD).
- Explaining how to control the way a .NET Framework object is serialized to XML.
- Describing the structures of a Simple Object Access Protocol (SOAP) request and response.
- Issuing a SOAP request and processing the response by using the .NET Framework.

Consuming XML Web Services 2 Hours

- Explaining the structure of a Web Service Description Language (WSDL) document.
- Explaining the XML Web services discovery process.
- Locating service contracts by using Disco.exe.
- Generating XML Web service proxies by using Wsdl.exe.
- Implementing an XML Web service consumer by using Visual Studio .NET.
- Invoking an XML Web service synchronously and asynchronously by using an XML Web service proxy.

Implementing a Simple XML Web Service 2 Hours

- Creating an XML Web service project.
- Implementing XML Web service methods, exposing them, and controlling their behavior.
- Managing state in an ASP.NET-based XML Web service.
- Debugging XML Web services.

Publishing and Deploying XML Web Services 2 Hours

- Explaining the role of UDDI in XML Web services.
- Publishing an XML Web service in a UDDI registry by using the UDDI SDK.
- Searching a UDDI registry to locate XML Web services by using the UDDI SDK.
- Explaining the various options for publishing an XML Web service on an intranet.
- Explaining some of the options for modifying the default configuration of an XML Web service.

Securing XML Web Services 2 Hours

- Identifying the differences between authentication and authorization.
- Explaining how to use the security mechanisms that Microsoft Internet Information

- Services (IIS) and Windows provide for authentication.
- Using SOAP headers for authentication in an XML Web service.
- Using role-based security and code access security for authorization in an XML Web service.
- Encrypting the communication between an XML Web service consumer and an XML Web service.

Designing XML Web Services 2 Hours

- Identifying the restrictions that are imposed on data types by the various XML Web services protocols.
- Explaining how the use of Application and Session state can affect the performance and scaling of XML Web services.
- Explaining how to use output and data caching to improve XML Web service performance.
- Implementing caching in an XML Web service.
- Explaining how asynchronous XML Web service methods can improve performance.
- Explaining the need for instrumenting XML Web services.
- Identifying the components of an XML Web service that can be versioned.
- Explaining how to implement a virtual XML Web service by using screen scraping.
- Implementing an XML Web service that uses multiple XML Web services.
- Identifying the trade-offs in the techniques that are used for exposing aggregated XML Web services.

Global XML Web Services Architecture 2 Hours

- Describe limitations inherent to the specifications with which today's XML Web services are built.
- Describe the design principles and specifications of Global XML Web services Architecture (GXA).
- Describe XML Web service application scenarios made possible by Web Services
- Routing Protocol (WS-Routing) and Web Services Referral Protocol (WS-Referral).
- Explain how to use Web Services Security Language (WS-Security) and Web Services License Language (WS-License) to perform authentication and authorization for XML Web services.
- Design XML Web services that anticipate and can leverage the features that GXA will offer when released.

Introduction to COM+ Services 1 Hour

- History of Server-Based Applications
- The COM+ Runtime Architecture

Configuring Just-in-Time Activation and Synchronization 1 Hour

- The .NET Enterprise Services Programming Model
- Just-in-Time Activation
- Synchronization

Using ADO.NET to Work With Data 1 Hour

- The ADO.NET Architecture
- Accessing a SQL Server Database

Transaction Services 1 Hour

- Introduction to Transaction Processing
- .NET Enterprise Services Transactions

Securing Enterprise Applications 1 Hour

- Introduction to Application Security
- Implementing COM+ Role-Based Security
- Authentication and Impersonation

State Management 1 Hour

- Introduction to State Management
- Using the Shared Property Manager
- Using ASP.NET to Store State

Compensating Resource Managers 1 Hour

- Introduction to Compensating Resource Managers
- Implementing Compensating Resource Managers

Loosely Coupled Events 1 Hour

- Introduction to Loosely Coupled Events
- COM+ Events

- Using Loosely Coupled Events

Queued Components 1 Hour

- Introduction to Queuing
- Developing Queued Components
- Queued Components and Transactions

Debugging COM+ Applications 1 Hour

- Debugging Tools
- Common Debugging Scenarios

Deploying and Administering COM+ Applications 1 Hour

- Deploying a COM+ Application Built Using .NET Enterprise Services
- Using COM Admin Objects in WSH Scripts

COM+ 1.5 Enhancements 1 Hour

- Scalability and Availability Enhancements
- Manageability Enhancements
- Other COM+ Features

Analyzing Requirements and Defining Microsoft .NET Solution Architectures(EXAM 70-300)

Course Overview

This four-day, instructor-led course provides students with the knowledge and skills needed to design Microsoft .NET-connected solutions to business problems.

Duration

The total length of this course is 32 Hours

Course Objectives

At the end of the course, students will be able to:

- Explain how XML Web services emerged as a solution to the problems with traditional approaches to designing distributed applications.
- Describe the architecture of an XML Web services-based solution.
- Describe the underlying technologies of XML Web services and explain how to use the Microsoft .NET Framework to implement XML Web services by using these technologies.
- Implement an XML Web service consumer by using Microsoft Visual Studio .NET.
- Implement a simple XML Web service by using Visual Studio .NET.
- Publish and deploy an XML Web service.
- Secure an XML Web service.
- Implement caching in an XML Web service.
- Evaluate the trade-offs and issues that are involved in designing a real-world XML Web service.
- Implement nonstandard XML Web services such as Hypertext Markup Language (HTML) screen scraping and aggregating XML Web services.

Pre-requisites/Audience

This course is intended for experienced developers moving into a role that requires the skills to bridge business and technology environments or/and experienced developers, including those with the Microsoft Certified Application Developer (MCAD) credential, pursuing the Microsoft Certified Solution Developer (MCS D) credential. Before attending this course, students must have:

- A general understanding of the software development life cycle.
- Practical working knowledge of .NET development technologies.
- Familiarity with the Microsoft Solutions Framework (MSF) Process Model.
- Basic familiarity with object modeling and data modeling methodologies.
- Experience working with Microsoft Visio® Professional 2000.
- One year experience as part of a software development team.

Course Material/Text Books

The students will receive an MCSD Certification Courseware by Microsoft Press. Microsoft Press courseware is the definitive source for Microsoft learning. In addition, students will also have their own copy of A-TIPS' Sample Questions and Microsoft Certified practice tests for the MCSD exam.

VOUCHERS AND TESTING

Each MCP student will receive a complimentary test voucher. No additional payment is necessary for the voucher. The MCP exam is delivered at the Training Center, which is an authorized VUE Testing Center. A test administrator will be available throughout the day, and in the evening, to register students for the test.

COURSE OUTLINE

Introduction to Designing Business Solutions 2 Hours

- Overview of Microsoft Solutions Framework
- Phases in the MSF Process Model
- Introducing the Case Study-Adventure Works Cycles Application

Gathering and Analyzing Information 3 Hours

- Gathering Information
- Analyzing Information
- Using Modeling Notations
- Creating Use Cases and Usage Scenarios

Envisioning the Solution 3 Hours

- The Envisioning Phase
- Creating a Vision/Scope Document
- Creating the Project Structure Document
- Analyzing Risks

Creating the Conceptual Design 3 Hours

- An Introduction to the Planning Phase
- An Overview of the Functional Specification
- An Overview of the Conceptual Design Process
- Building the Conceptual Design
- Optimizing the Conceptual Design

Creating the Logical Design 3 Hours

- An Overview of Logical Design
- Creating a Logical Design
- Documenting Logical Design Output
- Optimizing Logical Design

Creating the Physical Design 3 Hours

- An Overview of Physical Design
- Physical Design Analysis
- Physical Design Rationalization
- Physical Design Implementation

Designing the Presentation Layer 3 Hours

- Basics of User Interface Design
- Designing the User Interface
- Designing User Process Components

Designing the Data Layer 3 Hours

- Designing the Data Store
- Optimizing Data Access
- Implementing Data Validation

Designing Security Specifications 3 Hours

- Overview of Security in Application Development
- Planning for Application Security
- Using the .NET Framework Security Features

- Designing Authorization, Authentication, and Auditing Strategies

Completing the Planning Phase 3 Hours

- Incorporating Design Considerations
- Planning for Administrative Features
- Planning for Future Phases
- Creating the Technical Specifications

Stabilizing and Deploying the Solution 3 Hours

- The MSF Stabilizing Phase
- Testing and Piloting for Stabilization
- The MSF Deploying Phase
- Deploying to a Production Environment

Designing and Implementing Databases with Microsoft SQL Server 2000 Enterprise Edition (Exam 70-229)

Course Overview

In this course, students will explore a number of skills related to Microsoft SQL Server 2000, with emphasis on structure and design of databases.

Duration

The total length of this course is 48 Hours

Course Objectives

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

- Discuss and identify key components and concepts of SQL servers
- Explore Transact-SQL
- Design and implement databases
- Create and manage tables
- Design data integrity
- Implement indexes
- Join tables
- Query multiple tables through the use of joins
- Design subqueries
- Use aggregate functions in queries
- Create and manage views
- Design and implement stored procedures
- Create triggers
- Manage transactions and locks
- Implement queries across multiple servers

Pre-requisites/Audience

The target audience for this course includes individuals who are either employed by, or who are seeking employment as, a Network Administrator or Database Administrator and Developer. The entry criterion for this course includes individuals who are entry-level IT professionals, new to hands-on Windows server and network administration. Before attending this course, some knowledge of SQL Server 2000 is an advantage.

Course Material/Text Books

The students will receive both MCDBA Certification Courseware by Microsoft Press. Microsoft Press courseware is the definitive source for Microsoft learning. In addition, students will also have their own copy of A-TIPS' Sample Questions and Microsoft Certified practice tests for the MCDBA exam.

Vouchers And Testing

Each MCP student will receive a complimentary test voucher. No additional payment is necessary for the voucher. The MCP exam is delivered at the Training Center, which is an authorized VUE Testing Center. A test administrator will be available throughout the day, and in the evening, to register students for the test.

Course Outline

Introduction to Transact-SQL 2 Hours

- The Transact-SQL Programming Language
- Types of Transact-SQL Statements
- Transact-SQL Syntax Elements
- Using SQL Server Books Online

Using Transact-SQL Querying Tools 2 Hours

- SQL Query Analyzer
- Using the Object Browser Tool in SQL Query Analyzer
- Using the osql Utility
- Executing Transact-SQL Statements
- Creating and Executing Transact-SQL Scripts

Retrieving Data 2 Hours

- Retrieving Data by Using the SELECT Statement
- Filtering Data
- Formatting Result Sets
- How Queries Are Processed
- Performance Considerations
- Retrieving Data and Manipulating Result Sets

Grouping and Summarizing Data 2 Hours

- Listing the TOP n Values
- Using Aggregate Functions
- GROUP BY Fundamentals
- Generating Aggregate Values Within Result Sets
- Using the COMPUTE and COMPUTE BY Clauses
- Grouping and Summarizing Data

Joining Multiple Tables 2 Hours

- Using Aliases for Table Names
- Combining Data from Multiple Tables
- Combining Multiple Result Sets
- Querying Multiple Tables

Working with Subqueries 2 Hours

- Introduction to Subqueries
- Using a Subquery as a Derived Table
- Using a Subquery as an Expression
- Using a Subquery to Correlate Data
- Using the EXISTS and NOT EXISTS Clauses
- Working with Subqueries

Modifying Data 2 Hours

- Using Transactions
- Inserting Data
- Deleting Data
- Updating Data
- Performance Considerations
- Modifying Data

Querying Full-Text Indexes 2 Hours

- Introduction to Microsoft Search Service
- Microsoft Search Service Components
- Getting Information About Full-Text Indexes
- Writing Full-Text Queries
- Querying Full-Text Indexes

Introduction to Programming Objects 2 Hours

- Displaying the text of a programming object

- Introduction to Views
- Advantages of Views
- Creating Views
- Introduction to Stored Procedures
- Introduction to Triggers
- Introduction to User-defined Functions
- Working with Views

SQL Server Overview 2 Hours

- What Is SQL Server?
- SQL Server Integration
- SQL Server Databases
- SQL Server Security
- Working with SQL Server

Overview of Programming SQL Server 2 Hours

- Designing Enterprise Application Architecture
- SQL Server Programming Tools
- The Transact-SQL Programming Language
- Elements of Transact-SQL
- Additional Language Elements
- Ways to Execute Transact-SQL Statement

Creating and Managing Databases 2 Hours

- Creating Databases
- Creating File groups
- Managing Databases
- Introduction to Data Structures

Creating Data Types and Tables 2 Hours

- Creating Data Types
- Creating Tables
- Generating Column Values
- Generating Scripts

Implementing Data Integrity 2 Hours

- Types of Data Integrity
- Enforcing Data Integrity
- Defining Constraints
- Types of Constraints
- Disabling Constraints
- Using Defaults and Rules
- Deciding Which Enforcement Method to Use

Planning Indexes 2 Hours

- Introduction to Indexes
- Index Architecture
- How SQL Server Retrieves Stored Data
- How SQL Server Maintains Index and Heap Structures
- Deciding Which Columns to Index

Creating and Maintaining Indexes 2 Hours

- Creating Indexes
- Creating Index Options
- Maintaining Indexes
- Introduction to Statistics
- Querying the sysindexes Table
- Setting Up Indexes Using the Index Tuning Wizard
- Performance Considerations

Implementing Views 2 Hours

- Introduction to Views

- Advantages of Views
- Defining Views
- Modifying Data Through Views
- Optimizing Performance by Using Views
- Performance Considerations

Implementing Stored Procedures 2 Hours

- Introduction to Stored Procedures
- Creating, Executing, Modifying, and Dropping Stored Procedures
- Using Parameters in Stored Procedures
- Executing Extended Stored Procedures
- Handling Error Messages
- Performance Considerations

Implementing User-defined Functions 2 Hours

- What Is a User-defined Function?
- Defining User-defined Functions
- Examples of User-defined Functions

Implementing Triggers 2 Hours

- Introduction to Triggers
- Defining Triggers
- How Triggers Work
- Examples of Triggers
- Performance Considerations

Programming Across Multiple Servers 2 Hours

- Introduction to Distributed Queries
- Executing an Ad Hoc Query on a Remote Data Source
- Setting Up a Linked Server Environment
- Executing a Query on a Linked Server
- Managing Distributed Transactions
- Modifying Data on a Linked Server
- Using Partitioned Views

Optimizing Query Performance 2 Hours

- Introduction to the Query Optimizer
- Obtaining Execution Plan Information
- Using an Index to Cover a Query
- Indexing Strategies
- Overriding the Query Optimizer

Analyzing Queries 2 Hours

- Queries That Use the AND Operator
- Queries That Use the OR Operator
- Queries That Use Join Operations

Managing Transactions and Locks 2 Hours

- Introduction to Transactions and Locks
- Managing Transactions
- SQL Server Locking
- Managing Locks

Cloud: Salesforce Admin & Custom Application Development – 40 hours

Course Overview

This foundational course is part of our IT Freelance Category, it provides end-to-end coverage of fundamental cloud computing topics as they pertain to both technology and business considerations. The course content is divided into a series of modular sections, each of which is accompanied by one or more hands-on exercises.

Duration

The total length of this course is 40 Hours

Course Objectives

At the end of this course students will be able to understand cloud computing and will be able to work in:

Salesforce.com CRM

Salesforce.com Interface

Salesforce.com Administration

Organization Administration

User Management

Security controls

Custom Application Development

Course Outline

Introduction to cloud computing (2 hrs)

- What is cloud computing
- Accepted level of cloud computing
- Traditional IT v/s cloud IT
- Cloud offerings by Salesforce

Salesforce CRM and clouds (3 hrs)

- What is CRM
- Sales cloud
- Service cloud
- Custom cloud
- Salesforce chatter
- Salesforce editions and its importance
- Force.com editions
- Salesforce organizations

Salesforce Interface (3 hrs)

- Login to salesforce
- Profile setup
- Navigation and interface settings
- Force.com apps
- Tabs and objects
- Standard app
- Custom app
- Standard object
- Custom object
- Picklist

Salesforce Administration

Admin setup page (2 hrs)

- Setup options
- Personal setup
- Administration setup
- App setup
- System log

Organization Administration (2 hrs)

- Company setup
- Fiscal year setup
- Business hour setup
- Holidays setup
- My domain

Manage users (2 hrs)

- Managing roles
- Managing profiles
- Managing users
- Managing groups
- Managing queues
- Login history

Security controls (3 hrs)

- Sharing settings
- Field accessibility
- Password policies
- Session settings
- Network access
- Single sign on
- Setup audit trail
- Delegated administration
- Remote site setting

Data management (3 hrs)

- Creating analytic snapshot
- Import wizard
- Export
- Storage usage
- Mass transfer
- Mass delete
- Apex data loader

Monitoring (2 hrs)

- Monitoring imports
- Monitoring outbound messages
- Monitoring time-based workflow
- Monitoring case escalations, entitlement process, mass emails
- Monitoring debug logs

Mobile administration (2 hrs)

- Salesforce mobile configuration

- Users and devices
- Settings

Salesforce integration (2 hrs)

- Integration with google apps
- Integration with outlook
- Offline briefcase configuration
- Email templates

Customization and configuration (3 hrs)

- Customizing salesforce standard objects
- Creating web to lead form
- Creating email to case
- Setting up validation rule
- Setting up assignment rules

Custom application development in cloud

Create app (4 hrs)

- Standard apps
- Custom tab
- Creating custom app on force.com platform
- Creating custom objects
- Creating custom field
- Creating master detail relations hips
- Creating field type
- Reports

Validation rule and sharing rules (3 hrs)

- Creating validation rules for custom fields
- Creating default fields and auto fields
- Creating pick lists
- Creating relationships
- Dependent fields
- Creating page layouts

Workflow and approval (3 hrs)

- Introduction to workflow process
- Introduction to approval process
- Creating custom workflows
- Creating workflow rules
- Create workflow tasks

Introduction to relational database and SQL (1 hr)

- Introduction to database
- Tables
- Columns
- Column type
- Introduction to SQL
- Select statement
- Insert, update, delete statements
- Database triggers

Introduction to Apex, and visualforce (2 hrs)

- What is apex
- Force.com architecture
- Introduction to Object Oriented Programming
- Introduction to MVC architecture
- Introduction to Visualforce

Cloud: Salesforce Advance Application Development

Course Overview

This Advance course is part of our IT Freelance Category, it provides deep knowledge of database interaction, APEX programming and different faces of salesforce.com cloud computing. The course content is divided into a series of modular sections, each of which is accompanied by one or more hands-on exercises

Duration

The total length of this course is 40 Hours

Course Objectives

At the end of this course students will be able to understand force.com and will be able to work in:

Development tools

SOQL

APEX

VisualForce

Advance VisualForce

Course Outline

Introduction to force.com platform (3 hrs)

- Application development tools and techniques
- Traditional approach v/s cloud approach
- Force.com platform as a service (PaaS)
- Model view control (MVC) architecture
- Force.com app builder tools
- Force.com IDE – Integrated development environment
- Custom application development languages

SOQL – Salesforce object query language (3 hrs)

- SOQL general syntax
- Querying data using SOQL
- Apex variable in SOQL
- Dynamic SOQL
- SOQL governors limit

SOSL – Salesforce object search language (3 hrs)

- SOSL general syntax
- Searching data with SOSL
- Dynamic SOSL
- Apex variable in SOSL
- SOSL governors limit

APEX (4 hrs)

- Introduction to APEX
- Developing APEX code
- APEX data type

- sObject type
- Custom labels
- Accessing sObject fields
- Operations on sObjects
- Collections (3 hrs)
 - Introduction to collection
 - List collection
 - Multidimensional list
 - Declaring a list
 - Accessing element in a list
 - Set collection
 - Declaring a set
 - Accessing elements of a set
 - Map collection
 - Declaring map
 - Accessing elements of map
- APEX Variables and expressions (3 hrs)
 - APEX variable types
 - Declaring APEX variables
 - Constants
 - Expressions
 - Expression operators
 - Operator precedence
 - Using comment
 - Assignment statements
- APEX conditional statements and loops (3 hrs)
 - IF-Else statement
 - Do-while loops
 - While loops
 - For loops
 - Traditional for loops
 - List or set for loops
 - SOQL for loops
- APEX Classes (5 hrs)
 - Introduction to class
 - Anonymous block
 - Exception handling
 - Defining APEX class
 - Declaring class variables
 - Defining class methods
 - Constructors
 - APEX properties
 - Automatic property
 - Static property
 - Interfaces
- APEX triggers (3 hrs)
 - Introduction to APEX triggers
 - General syntax
 - Before insert trigger
 - Before update trigger
 - Before delete trigger
 - After insert trigger
 - After update trigger
 - After delete trigger

- Advance APEX (3 hrs)
 - Overloading methods
 - Instance of keyword
 - Super keyword
 - This keyword
 - With sharing and without sharing keywords
 - Annotations
 - Deprecated annotation
 - Future annotation
 - IsTest annotation
 - Integrating with third party applications
- Testing and deploying APEX (3 hrs)
 - Unit testing APEX
 - runAs method
 - Testing example
- Visualforce (2 hrs)
 - Introduction to visualforce
 - Visualforce markup
 - Visualforce controllers
 - Standard controllers
 - Custom controllers
 - VF architecture
- Coding visualforce page (4 hrs)
 - VF components
 - Overriding a standard page
 - Dependent field to a page
 - Inline editing
 - Rendering VF page as PDF
 - Building table data in a page
 - Editing table data
 - Using AJAX in VF
 - Styling VF page
 - Using content type
- Standard and Custom Controller (4 hrs)
 - Object accessibility
 - Standard list controller
 - Editing record with list controller
 - Custom controllers
 - Controller extensions
 - Controller methods
 - Creating wizard in VF
 - Static resource
- Advance visualforce (4 hrs)
 - Creating template
 - Developing VF pages for mobile devices
 - Developing pages for iPhone
 - Developing pages for blackberry
 - Mobilizing VF pages

IT Pro Experts

Program Overview

For delegates who require expert level support for technical skills.

Duration

The total length of this course is 120 Hours

Program Outline

Following are the courses that are offered in this program:

1. Cisco Certified Network Associate (CCNA)
2. Certified Wireless Network Associate (CWNA)

IT Professionals

Program Overview

For delegates who require improvement and update their advance technical skills.

Duration

The total length of this course is 264 Hours

Program Outline

Following are the courses that are offered in this program:

1. Microsoft Certified System Administrator (MCSA) 2003
2. Microsoft Certified System Engineer (MCSE) 2003
3. CompTIA Security+ Certification
4. Oracle Database 10g: Introduction to SQL
5. Oracle Application Server 10g Administration

IT Advanced

Program Overview

For delegates who require advanced skills.

Duration

The total length of this course is 80 Hours

Program Outline

Following are the courses that are offered in this program:

1. MS Access 2003 Level III
2. MS Excel 2003 Level III
3. MS Outlook 2003 Level III
4. MS Powerpoint 2003 Level II
5. MS Word 2003 Level III
6. Java Programming

IT Intermediate

Program Overview

For delegates who require intermediate skills in Microsoft Office, and Web Tools.

Duration

The total length of this course is 64 Hours

Program Outline

Following are the courses that are offered in this program:

1. MS Access 2003 Level II
2. MS Excel 2003 Level II
3. MS Outlook 2003 Level II
4. MS Word 2003 Level II
5. JavaScript Programming

IT Beginners

Program Overview

For delegates who require an introduction to Microsoft Office, Web Tools, PC Hardware Troubleshooting, Basic Networking and Windows 9x/NT/2000

Duration

The total length of this course is 144 Hours

Program Outline

Following are the courses that are offered in this program:

1. MS Access 2003 Level I
2. MS Excel 2003 Level I
3. MS Outlook 2003 Level I
4. MS Powerpoint 2003 Level I
5. MS Word 2003 Level I
6. HTML 4.01 Programming
7. CompTIA A+ Certification

IT Career Path

Program Overview

For delegates who require an overall career switch. This program covers every thing that a person needs to be a successful computer/system analyst. This program will train delegates in a full SDLC (System Development Life Cycle)

Duration

The total length of this course is 2 Years

1. CompTIA A+ Certification
2. Microsoft Office Specialist (MOS) [Soft Skills]
3. Cisco Certified Network Associate (CCNA)
4. MCSE 2003/MCSA 2003/ Security + Certification Track
5. HTML 4.01 Programming
6. Java Programming
7. Introduction to SQL Server
8. HTML 4.01 Programming
9. ASP .Net
10. Introduction to Business Analyst (BA)
11. Introduction to Quality Assurance (QA)

Class Schedule

Class Schedules may change based on the enrolment.

Cisco Certified Network Associate (CCNA)

02/17/2012 – 02/28/2012 8:00A.M. – 5:00P.M.
13/21/2012 – 03/16/2012 5:30P.M. – 10:30P.M.

CompTIA A+ Certification

02/03/2012 – 02/14/2012 8:00A.M. – 5:00P.M.
02/26/2012 – 03/18/2012 5:30P.M. – 10:30P.M.

MCSE 2003 + MCSA 2003 + Security+ Certification Track

03/19/2012 – 04/21/2012 8:00A.M. – 5:00P.M.
04/10/2012 – 05/30/2012 5:30P.M. – 10:30P.M.

Certified Wireless Network Associate (CWNA)

9/24/2012 – 10/08/2012 9:00A.M. – 6:00P.M.
11/20/2012 – 12/11/2012 9:00A.M. – 6:00P.M.

Microsoft Office Specialist (MOS)

08/19/2012 – 09/25/2012 5:30P.M. – 10:30P.M.
10/28/2012 – 11/16/2012 8:00A.M. – 5:00P.M.

HTML 4.01 PROGRAMMING

08/24/2012 – 09/25/2012 9:00A.M. – 6:00P.M.

JAVASCRIPT PROGRAMMING

9/26/2012 – 9/29/2012 8:00A.M. – 5:00P.M.
12/01/2012 – 12/09/2012 5:30P.M. – 10:30P.M

JAVA PROGRAMMING

9/30/2012 – 10/15/2012 9:00A.M. – 6:00P.M.
11/20/2012 – 12/11/2012 9:00A.M. – 6:00P.M

ACTIVE SERVER PAGES PROGRAMMING

10/24/2012 – 10/28/2012 8:00A.M. – 5:00P.M.

PERL PROGRAMMING & CGI SCRIPTING

10/16/2012 – 10/23/2012 9:00A.M. – 6:00P.M.

ADVANCED PERL PROGRAMMING

10/31/2012 – 11/04/2012 8:00A.M. – 5:00P.M.

ORACLE 10g APPLICATION SERVER

9/28/2012 – 10/06/2012 5:30P.M. – 10:30P.M.
11/05/2012 – 11/13/2012 9:00A.M. – 6:00P.M

ORACLE DATABASE 10g: INTRODUCTION TO SQL

9/19/2012 – 9/27/2012 5:30P.M. – 10:30P.M.
10/22/2012 – 10/30/2012 9:00A.M. – 6:00P.M

LINUX

9/19/2012 – 9/21/2012 8:00A.M. – 5:00P.M.

12/12/2012 – 12/16/2012 5:30P.M. – 10:30P.M

MCDBA

10/31/2012 – 11/23/2012 8:00A.M. – 5:00P.M.

MCS D

11/07/2012 – 12/08/2012 8:00A.M. – 5:00P.M.

Tuition

Students attending A-TIPS are required to pay their tuition to A-TIPS before the commence of their respective course. A-TIPS does not charge any additional fees to its students. A-TIPS tuition rates for calendar year 2012 – 2013 are as follows :

Course	Tuition
Cisco Certified Network Associate (CCNA)	\$2295/=
CompTIA A+ Certification	\$2295/=
MCSE 2003/MCSE 2003/Security+ Certification Track	\$6995/=
Certified Wireless Network Associate (CWNA)	\$3295/=
Microsoft Office User Specialist (MOS)	\$4195/=
HTML 4.01 Programming	\$695/=
JavaScript Programming	\$4600/=
Java Programming	
Active Server Pages (ASP .Net)/VB .Net	\$2895/=
Perl Programming and CGI Scripting	\$1975/=
Advanced Perl Programming	\$2195/=
Oracle Application Server 10g Administration	\$2995/=
Oracle Database 10g: Introduction to SQL	\$2995/=
Linux Fundamentals	\$1995/=
Microsoft Certified Database Administrator (MCDBA)	\$4995/=
Microsoft Certified Solution Developer (MCSD)	\$5995/=
Project Management	\$5000/=
Business Analyst	\$5000/=
Cisco Security/Security Plus	\$2400/=
Cloud: Salesforce Admin & Custom Application Development	\$3695/=
Cloud: Salesforce Advance Application Development	\$3695/=

Apart from individual courses, A-TIPS also offer combination programs that focus on an aspect of computer user. Rates of these programs are as follows:

IT Pro Experts	\$3795/=
IT Professionals	\$8195/=
IT Advanced	\$3095/=
IT Intermediate	\$2295/=
IT Beginners	\$3995/=

All these rates include the books and materials and the test vouchers (if applicable) of their respective courses. There are no additional student fees. Tuition rates are subject to change at any time by the executive branch of A-TIPS.

Notes