



Diploma in Unix Networking

Unix is one of the oldest networking operating systems and Windows is one of the most commonly used networking operating system. Hence knowledge in both networking systems makes one more marketable.

Why does the course exists – Networking is a technology used for business and private purposes. With the advent of the internet, networking is now at the forefront. A combination of both Unix and Windows course cannot be over played. Candidates who undertake this course have greater chances of getting employment.

How it fits into the larger programme – An organisation can either run Unix or Windows networking system or both. This increase the chances of employment and also equip candidates with the most sought after networking knowledge. With the rapid growth in the technology and telecommunications industry, the demand for skilled professionals who can maintain information systems and develop effective and efficient procedures is growing rapidly.

For whom it was designed – This course is designed for candidates who complete the Certificate in Networking or those with equivalent qualifications interested in pursuing networking further.

How it will benefit candidates – Candidates benefit immensely because they are likely to get employment. Candidates also have a choice of furthering their knowledge by pursuing the Diploma in PC Engineering & Structured Cabling or the Cisco Routing.

Subjects:

- UNIX Performance Management
- SCO Unix Administration
- Linux Administration
- Solaris Administration
- Perl Programming

Unix Performance Management – In UNIX, everything is a file; even a hard drive is a file. Hence understanding the UNIX file system is a requirement for every Unix Network Administrator.

SCO Unix Administration – All UNIX commands are very similar (just like English English or American English) pronunciation might be different or there might an “z” instead of “s” – but the meaning and syntax is identical. However, on Administration, UNIX systems are very different, though the tasks are the same; creating users, assigning permissions/rights and security (see Linux Administration below)

Linux Administration - the use of system administration tools and tasks, which include: booting and shutting down the system; adding and removing user accounts; using backup programs; performing fsck and maintaining system database files (groups, hosts, aliases, etc.). The maintaining aspect of the Unix operating system include job control, hard and soft linking, shell

and kernel programs and security procedures. Other aspects of the Unix operating system are: paging/swapping, inter-process communication, devices and device drivers, file system concepts like inode and superblock, networking/distributed computing environments and concepts, configuring NFS and NIS, using nslookup or research to check information in the DNS and writing detailed scripts.

Solaris Administration – Most Oracle Databases sit on top of Solaris Server. However, Solaris Administration looks at tasks performed by Administrators in maintaining the system. (see Linux Administration above). Another important course is the Oracle Solaris Network Administration (see Diploma in Database Administration). The UNIX operating system comprises three parts: the kernel, the standard utility programs, and the system configuration files. **The kernel** - is the core of the UNIX operating system. Basically, the kernel is a large program that is loaded into memory when the machine is turned on, and it controls the allocation of hardware resources from that point forward. The kernel knows what hardware resources are available (like the processor(s), the on-board memory, the disk drives, network interfaces, etc.), and it has the necessary programs to talk to all the devices connected to it. **The standard utility programs** - these programs include simple utilities like *cp*, which copies files, and complex utilities, like the shell that allow users to issue commands to the operating system. **The system configuration files** - are read by the kernel, and some of the standard utilities. The UNIX kernel and the utilities are flexible programs, and certain aspects of their behaviour can be controlled by changing the standard configuration files. One example of a system configuration file is the filesystem table "*fstab*", which tells the kernel where to find all the files on the disk drives. Another example is the system log configuration file "*syslog.conf*", which tells the kernel how to record the various kinds of events and errors it may encounter.

Perl Programming – Perl programming is mainly used in Web programs. Remember that UNIX and the Internet are related, hence Perl Programming is part of that relationship.