

COURSE OUTLINE

MSFT-688

Internetworking Microsoft TCP/IP on MS Windows NT 4.0

3 Semester Hours

HOWARD COMMUNITY COLLEGE

Description

This course is intended for network integrators, system engineers, and support professionals who implement and support Transmission Control Protocol/Internet Protocol (TCP/IP) in local (LAN) and wide-area network (WAN) environments, and provides the student with the knowledge and skills required to install, configure, use, and support Microsoft TCP/IP on Microsoft Windows NT operating system version 4.0. Prerequisite: MSFT-687 or MSFT-922. (3 hours lecture, 1 hour lab)

Overall Course Objectives

Upon completion of this course, the student will be able to:

1. Set up, configure and test TCP/IP.
2. Assign a valid IP address to multiple TCP/IP host computers in different LAN environments.
3. Define a subnet mask and IP address range for multiple TCP/IP routed networks.
4. Configure a Windows NT-based computer to function as an IP router.
5. Install and configure a server with DHCP to configure IP parameters for DHCP clients.
6. View and modify the ARP cache.
7. Resolve local and remote host names using the HOSTS file.
8. Resolve NetBIOS names of remote hosts using the LMHOSTS file.
9. Install and configure a WINS server to resolve NetBIOS names of local and remote hosts to facilitate internet browsing.
10. Use MS TCP/IP utilities to transfer files, run commands, initiate remote logon sessions, and perform terminal emulation with a TCP/IP-based host.
11. Configure Windows NT Server to support TCP/IP printing.
12. Set up the MS SNMP service for monitoring network activity and system performance.
13. Tune TCP/IP for performance.
14. Diagnose and solve problems in configuration, IP address resolution, NetBIOS name resolution, host name resolution, and connectivity.

Major Topics

- I. IP Addressing
- II. Subnet Addressing
- III. Implementing IP Routing
- IV. Dynamic Host Configuration Protocol
- V. IP Address Resolution
- VI. NetBIOS Name Resolution
- VII. Windows Internet Name Service
- VIII. Internetwork Browsing
- IX. Host Name Resolution
- X. Connectivity in Heterogeneous Environments
- XI. Implementing Microsoft SNMP Service
- XII. Performance Tuning and Optimization
- XIII. Troubleshooting Microsoft TCP/IP

About Microsoft Curriculum at HCC

When a student takes a Microsoft course at HCC, that student usually receives more instruction time than they would receive in other formats. Therefore, while taking Microsoft courses at HCC, the student may expect not only instruction from Microsoft materials but additional academic and practical exercises and course work to better equip the student not only for the corresponding certification exam but for eventual utilization in their professional endeavors.

Course Requirements

Grading/exams: Grading procedures will be determined by the individual faculty member but will include the following: two quizzes or exams and one lab activity.

Other Course Information

This course is a Network Administration core course.

This course is also intended for students who wish to become a Microsoft Certified Systems Engineer (MCSE).