

# COURSE OUTLINE

## MSFT-689

### Supporting Microsoft Windows NT 4.0 Enterprise

3 Semester Hours

## HOWARD COMMUNITY COLLEGE

### Description

This course provides the core foundation for supporting MS Windows NT 4.0 operating system in a complex environment such as capacity planning on a server and a network, multiple domain management, and trust relationships. Students should be familiar with NT 4.0 administration concepts, DOS, microcomputer concepts, and Windows 95. Prerequisite: MSFT-922. (3 hours lecture, 1 hour lab)

### Overall Course Objectives

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

1. Define Windows NT Server Directory Services.
2. Establish trust relationships.
3. Examine the effects that the different Directory Services structures have on a network implementation.
4. Plan a Directory Services structure.
5. Plan and implement Windows NT Server-based environments, including the ability to define performance and optimization as it relates to Windows NT Server.
6. Create a measurement database.
7. Analyze system performance.
8. Implement a performance and optimization strategy.
9. Plan and implement a Windows NT-based network.
10. Explain the process of analyzing network traffic.
11. Analyze client-to-server traffic and server-to-server traffic.
12. Optimize network traffic.
13. Predict network traffic.
14. Isolate problems to specific components in the architecture using Windows NT Server 4.0 tools.
15. Trace the system dependencies for devices and services using the Registry.
16. Identify the files used in the Windows NT load sequence.

17. Repair damaged files, interpret blue screens, and use Kernel Debugger.

## **Major Topics**

- I. Defining Windows NT Directory Services
- II. Establishing Trust Relationships
- III. Choosing a Directory Services Structure
- IV. Planning Your Directory Services Structure for Performance
- V. Basics of Server Analysis and Optimization
- VI. Implementing a Measurement Baseline
- VII. Performance Analysis, Forecasting, and Record Keeping
- VIII. Analyzing System Performance in the File and Print Server Environment
- IX. Analyzing System Performance in the Application Server Environment
- X. Analyzing System Performance in the Domain Server Environment
- XI. Introduction to Analyzing Network Traffic
- XII. Analyzing and Optimizing Client Initialization Traffic
- XIII. Analyzing and Optimizing Client-to-Server Traffic
- XIV. Analyzing and Optimizing Server-to-Server Traffic
- XV. Predicting Network Traffic
- XVI. Overview of Troubleshooting in the Enterprise Environment
- XVII. Examining the Microsoft Windows NT Architecture
- XVIII. Modifying the System Through the Registry
- XIX. Examining the Boot Process
- XX. Examining Stop Screens

## **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:

Writing:

## **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).