

COURSE TITLE AND NUMBER: Managing a Microsoft® Windows® 2000 Network Environment, IT 140

North Central **Michigan College**

NCMC CURRICULUM/COURSE OUTLINE FOR YEARS 2002 +

DIVISION/AREA: Business and Technology DEPARTMENT: Information Technologies

AREA DEAN: Dr. Timothy Dykstra ORIGINATOR: Fred Harrington

TOTAL HOURS OF INSTRUCTION: LECTURE: 0 LAB: 2.5 TOTAL CONTACT HOURS: 2.5

COURSE NUMBER: IT 140 CREDIT HOURS: 2.5

COURSE TITLE: Managing a Microsoft® Windows® 2000 Network Environment

TRANSFERABLE YES: NO: TO:

PREREQUISITE(S)/COREQUISITE(S)/ADVISORY:

PREREQUISITES: IT 130, or instructor approval with a pretest.

CATALOG DESCRIPTION: IT 140, Managing a Microsoft® Windows® 2000 Network Environment

The goal of this course is to provide the knowledge required to implement, manage and troubleshoot existing network and Microsoft Windows® 2000 server environments. Focus will be on the skills generally required in medium to large size organizations spanning 2 to 100 physical locations via Large Area Networks (LANs) and the Internet or Intranets. Additionally, this course will help prepare you for the Microsoft Certified Systems Administrator (MCSA) Certification Examination 70-218. Prerequisite IT 130 or instructor approval.

GENERAL EDUCATION OUTCOMES OR OCCUPATIONAL PROGRAM OUTCOMES

The purpose of General Education requirements in our degree programs is to enable students to develop their ability to reason, to communicate effectively in both oral and written form, and to acquire sufficient knowledge of their heritage to participate fully in society and the world. Upon completion of an associate degree program, a graduate will be able to:

1. Think critically and analytically: The course requires a student manage Microsoft Windows® 2000 server environments and develop trouble shooting techniques needed to maintain logon communications across wide area networks.
1. Write and speak effectively: The course requires a student to document completion of each laboratory assignment with a clearly written professionally formatted letter. Prior to taking the final examination each student must pass an oral examination in which students must clearly articulate their understanding of an instructor selected topic.

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1. Independently acquire knowledge: The course is an instructor guided self-study program. Instructor guidance is used to help students develop concepts through pre-designed exercises and exploration in a controlled environment. Online supplements are provided for both remedial support and in-depth investigations.
1. Select and use mathematical tools for problem solving and decision-making: The course requires a student use a binary to decimal conversions to analyze replication latency issues and resolve conflicts resulting from replication errors.

COURSE OBJECTIVES & OUTCOMES:

Upon successful completion of this course with appropriate study, you will be able to:

1. Delegate administrative control of an organizational unit.
2. Publish and maintain printers and shared folders.
3. Implement and manage web-based services in an intranet.
4. Implement and manage the Dynamic Host Configuration Protocol (DHCP) service.
5. Implement name resolution for client computers by using Domain Name System (DNS) and Windows Internet Name Service (WINS).
6. Install and configure the DNS service.
7. Implement the Remote Access Service (RAS).
8. Manage remote access by using remote access policies.
9. Identify Active Directory™ directory service replication latency issues and resolve conflicts resulting from replication.
10. Implement Group Policy to centrally manage users and computers.
11. Manage users' desktops and software by using Group Policy.
12. Implement security settings and account policies by using Group Policy.
13. Troubleshoot client computer startup and user logon problem

METHODS OF INSTRUCTION: This course will be completed as an instructor directed self-study using laboratory exercises coinciding with assigned readings and online supplemental study aids.

METHODS OF EVALUATION:

Tests (1) = 30%

Quizzes = 30%

Assignments and lab work = 30%

Oral examination = 10%

Grading Scale: A (95), A- (90), B+ (87), B (83), B-(80), C+(77), C (73), C-(70), E-(less than 70)

14. The test will be scheduled with advance notice upon completion of all labs, quizzes, and an oral examination. The test will consist of questions derived from labs, and assigned readings.
15. Quizzes will be given at completion of each chapter lab assignment. Quizzes will consist of questions derived from labs, and assigned readings.
16. Lab exercises will be completed in conjunction with assigned readings. Before leaving the lab, the instructor must view your lab assignments. To ensure you receive credit for the lab you must turn in a lab report written as a letter in the professional format provided by the instructor.
17. An oral examination will be conducted upon completion of all assignments. During the examination the student must demonstrate satisfactory knowledge in an area to be determined by the instructor.

Quizzes, tests, and the oral examination must be passed with a score of 70 or greater. Examinations may be retaken after a waiting period of at least one day. In all reexaminations the highest achievable score will be 70.

REQUIRED TEXTS:

ALS: Managing a Microsoft® Windows® 2000 Network Environment textbook and ALS: Managing a Microsoft® Windows® 2000 Network Environment (Microsoft Press, 2001)

SEQUENCE OF INSTRUCTION:

The following is a tentative schedule based on individual student needs. The instructor reserves the right to make any schedule changes deemed necessary and assign online supplemental activities as necessary. The entire sequence must be completed by the end of the calendar semester. Laboratory access is limited to 12 hours per week for this course.

Module 1: Introduction to Managing a Windows 2000 Network

Module 2: Managing Shared Network Resources

Module 3: Managing Web Services

Module 4: Implementing and Managing DHCP

Module 5: Implementing Name Resolution

Quiz 1, Mod 1 - 5

Module 6: Managing DNS

Module 7: Configuring Remote Access

Module 8: Supporting Remote Access Policy

Module 9: Resolving Active Directory Replication Conflicts

Module 10: Delegating Administrative Control

Quiz 2, Mod 6 - 10

Module 11: Implementing Group Policy

Module 12: Using Group Policy to Manage the Desktop Environment

Module 13: Managing Network Security

Module 14: Troubleshooting Client Computer Startup and User Logon Problems

Quiz 3, Mod 11 - 14

Oral examination

Final examination

Reasonable accommodations may be provided for students with documented physical, sensory, cognitive, systemic, and/or psychiatric disabilities. Please contact the Education Opportunity Program (EOP) at (231) 348-6687 to arrange services for this course.

APPROVED FOR ADOPTION BY THE CRD/AP COMMITTEE ON _____