

COURSE TITLE AND NUMBER: NETWORKING ESSENTIALS IT 100

North Central Michigan College

NCMC MASTER COURSE SYLLABUS

Last Date Revised: 11/29/04

DIVISION/AREA: Business and Technology DEPARTMENT: Information Technologies

DIVISION DIRECTOR: Robert Marsh, Ph.D. ORIGINATOR: Fred R. Harrington, Jr.

AREA DEAN: Timothy Dykstra, Ph.D.

TOTAL HOURS OF INSTRUCTION: LECTURE: 1.5 LAB: TOTAL CONTACT HOURS: 26.4

COURSE NUMBER: IT 100 CREDIT HOURS: 1.5

COURSE TITLE: Networking Essentials

TRANSFERABLE YES: NO: TO:

PREREQUISITE(S)/COREQUISITE(S)/ADVISORY: none

CATALOG DESCRIPTION: IT 100, Networking Essentials, Implementing TCP/IP in static and dynamic networks. Using binary and decimal representations of Internet addresses to divide networks into smaller subnets of various sizes. Introduces to the terminology and components of a small office network.

GENERAL EDUCATION OUTCOMES OR OCCUPATIONAL PROGRAM OUTCOMES

This course introduces the following competencies for the Computer Networking Program:

3. Demonstrate an understanding of network communication fundamentals
 7. Implement and administer automated TCP/IP infrastructures
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COURSE OBJECTIVES & OUTCOMES:

At the completion of this course, with appropriate study, you will be able to:

1. Calculate subnets for a given TCP/IP network
 2. Describe the OSI model
 3. Implement static and dynamic IP NIC configurations
 4. Analyze network layer protocols
 5. Describe TCP/IP routing
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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.

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METHODS OF EVALUATION:

Tests, Quizzes, Assignments and lab work, Oral examination

REQUIRED TEXTS:

ALS: Network+ Certification, Second Edition textbook and ALS: Network+ Certification, Second Edition Lab Manual (Microsoft Press, 2003).

DISABILITIES POLICY: Reasonable accommodations may be provided for students with documented physical, sensory, cognitive, systemic, and/or psychiatric disabilities. Please contact Learning Support Services (LSS) at (231)348-6682 to arrange services for this course.

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.

Week 1, Install Windows Server, Read chapters 1, 2

Week 2 Install Antivirus and MS Office

Week 3 Plug your server into a hub that is not connected to anything else and install DHCP

Week 4 TCP/IP Quiz, read chapters 6, 8

Week 5 Labs 3, 7, 9, 12 covering TCP/IP configuration, Transport Layer, Calculating IP addresses, and routing exercises

Week 6 Final exam (some more TCP/IP questions) and oral exam

APPROVED FOR ADOPTION BY THE CRD/AP COMMITTEE ON: **11/29/04**