

North Central Michigan College

NCMC MASTER COURSE SYLLABUS

Last Date Revised 11/30/2010

INSTRUCTIONAL AREA: Business and Technology

DEPARTMENT: Information Technologies

ASSOCIATE DEAN: Robert Marsh, Ph.D.

ORIGINATOR: Fred Harrington

DEAN OF INSTRUCTION: Christine Hammond, Ph.D.

COURSE ALPHA/NUMBER: IT 170

COURSE TITLE: Cisco Network Fundamentals

HOURS OF INSTRUCTION:

Credit hours: 3

Lecture: 3

Lab: 0

Clinical: 0

Variable Hours: 0

Total Hours of Instruction: 3

Total Contact Hours: 52.8

(Total Contact Hours Formula: (lecture hours + lab hours) x 17.6

CATALOG DESCRIPTION:

An introduction to fundamental networking concepts and technologies. Online course materials provided through the Cisco Academy will assist you in developing the skills necessary to plan and implement small networks across a range of applications. Classroom activities will be used to reinforce your knowledge in each area. This is the 1st course of 3 preparing you for the ICND1 section of the Cisco Certified Network Administrator (CCNA) Certification.

PREREQUISITE(S): None

COREQUISITE(S):

GENERAL EDUCATION DISTRIBUTION AREA:

Communications, Writing

Natural Science Group A

Communications, Communications

Natural Science Group B

Humanities Group A

Social Science Group A

Humanities Group B

Social Science Group B

Mathematics

Non Applicable

GENERAL EDUCATION OUTCOMES:

Write and Speak Effectively

Think Critically & Analytically

Write & Speak Effectively and Think Critically & Analytically

X Non Applicable

COURSE OBJECTIVES AND OUTCOMES:

Define various networking technologies and their applications
Describe the layers of the OSI model and their implementation
Calculate a given subnet
Describe the protocols used in Ethernet LANs
Configure and test a small network

METHODS OF INSTRUCTION:

Online lectures, simulations and hands on lab exercises

METHODS OF EVALUATION:

Lab demonstration, quizzes and final examination

REQUIRED TEXT AT TIME OF COURSE ADOPTION/REVISION:

TEXTS: CCNA Exploration Course Booklet: Network Fundamentals, Version 4.0
Cisco Networking Academy, Cisco Press, 2010

OPTIONAL SUPPLEMENTARY MATERIALS:

Reasonable accommodations can be provided for students with documented disabilities. Please contact Learning Support Services for assistance: (231)348-6817.

SUGGESTED TIME ALLOWANCE AND SEQUENCE OF INSTRUCTION:

(List general content description of what is being covered each week)

(If you need more than one line for a week, hit enter at the end of row; second line will begin)

| | |
|---------|---|
| WEEK 1 | Introduction |
| WEEK 2 | Living in a Network Centric World |
| WEEK 3 | Communicating over the Network |
| WEEK 4 | Application layer functionality and protocols |
| WEEK 5 | OSI transport layer |
| WEEK 6 | OSI network layer |
| WEEK 7 | Addressing the network IPv4 |
| WEEK 8 | Data link layer |
| WEEK 9 | Ethernet |
| WEEK 10 | Planning and cabling networks |
| WEEK 11 | Configuring and testing your network |
| WEEK 12 | Project to end of semester |

APPROVED FOR ADOPTION/REVISION BY THE CRD/AP COMMITTEE ON 1/17/11