

Date: April 2006

I. Course Name: Preparing for Network Certification

Prefix and Number: CSC 291

Credit Hours and Contact Hours: 2 credit hours – 2 contact hours

Course Description:

This course prepares the student to take the Network+ Certification examination. It is intended for the experienced Networking Technician or the student who has completed the FLCC Computer Technology and Networking degree program. This course focuses on the topics covered in the Network+ certification examination and is intended to be a refresher course as well as a supplement to the student's prior studies and/or experience. It is expected that prospective students will have at least eighteen months' experience as a Networking Technician or its equivalent, or that the student has completed the Networking course sequence (CSC260 Data Communications and Networking , CSC261 Internetworking) as well as the CTN Internship or has completed the Computer Technology and Networking degree program. Prerequisite: CSC 260, CSC 261 or permission of instructor.

II. Course Outcomes and Objectives

Learning Outcomes

Upon completion of this course the participant is expected to be able to successfully complete the requirements for the Computing Technology Industry Association (CompTIA) Network+ Certification.

Relationship to Academic Programs and Curriculum

This course is not a required course for current Computer Science degrees. It is intended to be a refresher course as well as supplement the student's prior studies and/or experience.

Competencies Addressed In This Course

- Problem Solving and Critical Thinking
- Professional Competency
- Computer Literacy

III. Methods of Instruction

Methods of Instruction

1. Lecture
2. Discussions
3. Demonstrations
4. Hands-on Lab activities
5. Practice tests

Types of Materials

Textbooks: a review, practice and case study book on Network+ Certification and Networking Technology and Maintenance.

Methods of Assessment

Activities will focus on the knowledge domains covered by the Network+ Certification Tests, test taking methods and practice tests in an environment similar to the Network+ Test environment

Methods of Evaluation

The demonstration of the satisfactory achievement of the above learning outcomes will be the responsibility of the student, facilitated by the instructor. The department maintains an open attitude and believes that each instructor should determine the grading system and evaluation methods that will be used in his/her sections of the course. It is highly recommended that these be communicated to the students the first week of the course, preferably in writing. Among the evaluation methods that may be used are examinations quizzes and practice Network+ tests. Any grading system used must be consistent with the College Catalog and Middle States grading procedure. Course policies about attendance, late work, plagiarism, etc. are at the discretion of the instructor. If such policies exist, they must be communicated to the student, preferably in writing.

IV. General Outline of Topics Covered

The Network+ certification means that the candidate possesses the knowledge needed to configure and install the TCP/IP client. This exam covers a wide range of vendor and product neutral networking technologies that also serves as a prerequisite for vendor - specific IT certifications.

The following is an examination blueprint outlining the knowledge domains covered by the Network+ Certification. The objectives are in two distinct groups: Knowledge of Networking Technology and Knowledge of Networking Practices

Network+ Knowledge Domains

Part I Knowledge of Networking Technology

1. Basic Networking Concepts and Knowledge including topologies, major protocol suites, media and transport systems, network architecture, network hardware and network operating systems
2. The Open Systems Interconnection (OSI) Model
 - Physical Layer associated protocols, hardware and architecture
 - Data Link Layer associated protocols, hardware and architecture
 - Network Layer associated protocols, hardware and architecture
 - Transport Layer associated protocols, hardware and architecture

3. Internet and TCP/IP Fundamentals
4. TCP/IP Suite: Utilities
5. Network Software Systems
 - Major Network Operating Systems
 - ✓ Microsoft Windows NOS
 - ✓ Novell Netware NOS
 - ✓ Unix NOS
 - Network Management System Software
6. Remote Connectivity
7. Security

Part II Knowledge of Networking Practices

1. Implementing the Installation of the Network
2. Maintaining and Supporting the Network
3. Troubleshooting the Network