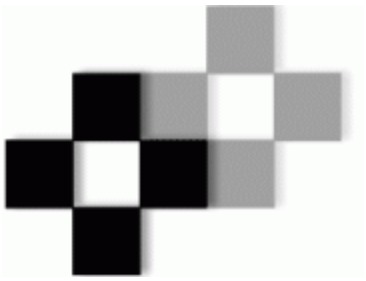

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Network+ Guide to Networks

General Course Information

Instructor:

Marvin Williams

Bio: Mr. Williams has been teaching computer technology at NCTC since 2009. He has worked extensively in the field of Application Development and Telecommunications. He received his BS in Systems Design, Mathematics from Kent State University and his Masters in Management of Information Systems from the University of Texas at Dallas. He has Network+ and Security+ certification. He is a certified Project Management Professional (PMP) and has endorsement as a Certified Information Systems Security Professional (CISSP). He has worked for numerous corporations including IBM, Accenture (Andersen Consulting), and Oracle Corporation and is currently a Principle Consultant with Infosys Technologies. Mr. Williams is the inventor and co-inventor of numerous computer technology patents. He is a private pilot and enjoys flying, traveling, and spending time with his family.

Hours: Scheduled Video Office Chat Times

Phone: 214-628-2046

Mail: Internal NCTC Corinth Campus – RM201

E-mail

mlwilliams@nctc.edu

Classroom: Distance Learning and Virtual Lab

Prerequisites: Computer experience or instructor approval.

I. INTRODUCTION

A. This course prepares individuals for a career as a Network Engineer in the Information Technology support industry. Includes the various

responsibilities and tasks required for service engineer to successfully perform in a specific environment. Prepares individuals to pass the

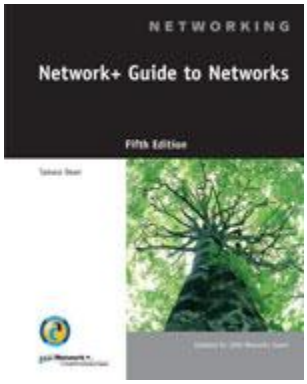
Computing Technology Industry Association (CompTIA) Network+ Certification exam.

B. This course serves as a required or elective course on various degrees plans. Curriculum plans for degrees and certificates are listed in the

current North Central Texas College catalog.

Textbook:

Tamara Dean, Network+ Guide to Networks, 5th Edition. Course Technology - Cengage Learning, 2010, ISBN-13: 9781423902454



Course Objectives

Knowing how to install, configure, and troubleshoot a computer network is a highly marketable and exciting skill. This course introduces the fundamental building blocks that form a modern network, such as protocols, topologies, hardware, and network operating systems. It also provides in-depth coverage of the most important concepts in contemporary networking, such as TCP/IP, Ethernet, wireless transmission, and security. The course will prepare you to select the best network design, hardware, and software for your environment. You will also have the skills to build a network from scratch and maintain, upgrade, and troubleshoot an existing

network. Finally, you should be well prepared for the CompTIA's (the Computing Technology Industry Association's) Network+ certification exam, although no explicit or implicit guarantees can be made.

Specific topic coverage includes:

· An Introduction to Networking

· Networking Standards and the OSI Model

· Transmission Basics and Networking Media

· Introduction to TCP/IP Protocols

· Topologies and Ethernet Standards

· Network Hardware

· WANs and Remote Connectivity

· Wireless Networking

· Network Operating Systems

· In-Depth TCP/IP Networking

· Voice and Video Over IP

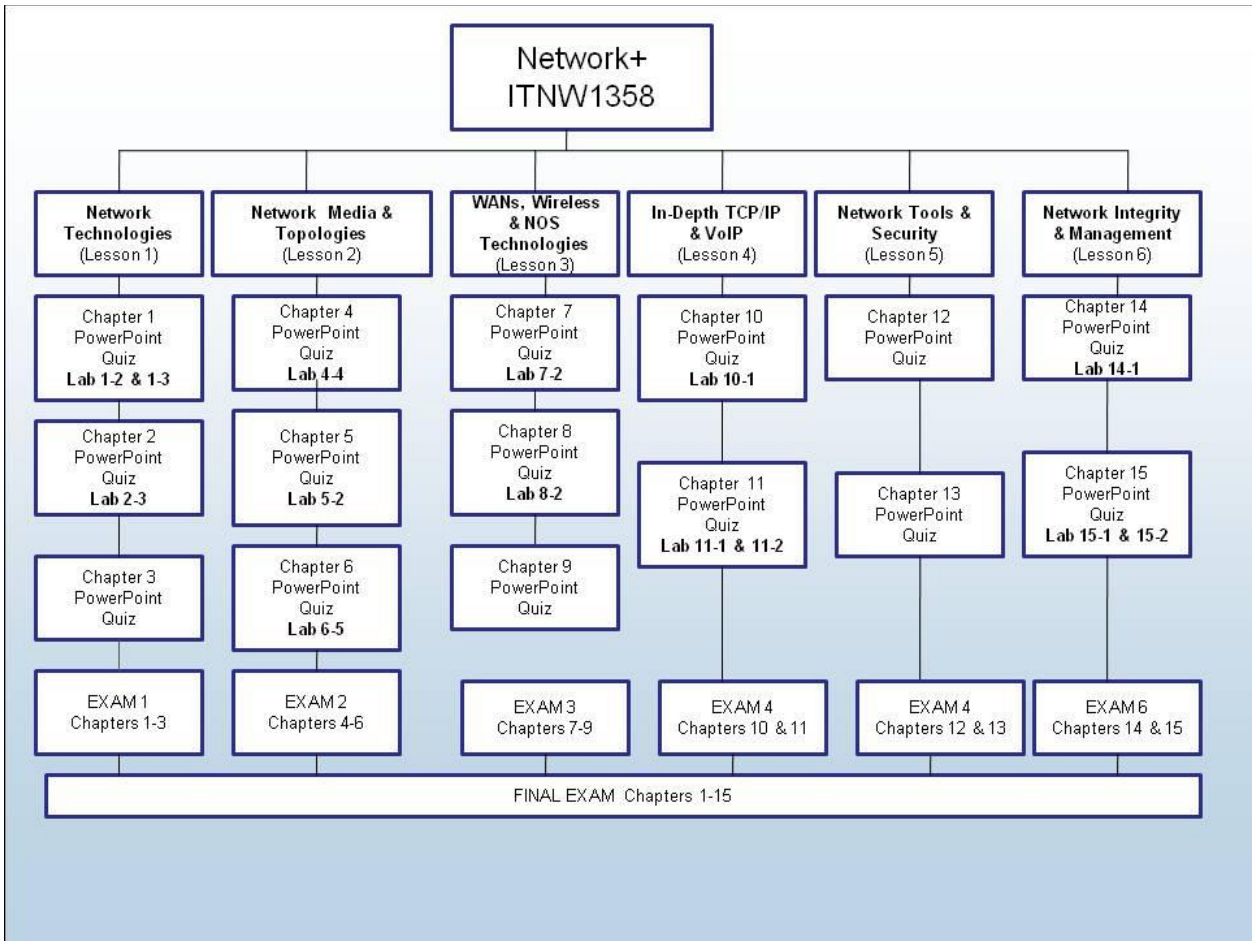
· Network Security

· Troubleshooting Network Problems

· Ensuring Integrity and Availability

· Network Management

Network Objective Map



Virtual Class Dates:

Students can, optionally, attend an Online Virtual classroom Webcam chat sessions conducted over Ustream.com. Within ANGEL, under the COMMUNICATE tab is link to the virtual classroom. This is a good time to ask questions directly to the instructor and to receive hints and pointers to help you with the assignments, tests and quizzes. Periodically, the instructor will be showing hardware and demonstrating particular aspects of network technology. Students with videocams and microphones can request to co-host if you wish to communicate via your webcam and you will be put in a queue. Wait your turn. All interaction on this site is public and can be viewed, heard, read and recorded by other people. Do **NOT** use this media if you wish to talk to the Instructor in private. If you wish to talk to instructor privately contact the instructor offline to schedule an appointment.

Date/Time	Primary Topic

January 18 – 6:00PM-6:30PM	Virtual Lab Setup – Network Technologies
February 1 – 6:00PM-6:30PM	Media and Topologies
February 15 – 6:0PM-6:30PM	WANS and Wireless
March 1 - 6:00PM-6:30PM	TCP/IP
March 22 – 6:00PM- 6:30PM	Network Tools
April 5 - 6:0PM-6:30PM	Network Management
April 19 - 6:00PM-6:30PM	Close-out Items

Additional Office Hours – Available by appointment.

Web Site

Information for the course is available on ANGEL under your www.angel.nctc.edu . The ANGEL Web site contains class notes, PowerPoint slides, class announcements, the course syllabus, test dates, and other information for the course.

E-Mail

When using email, all students are requested to use thier ANGEL e-mail account. If you have any questions about the course or need assistance, please contact me in person or by telephone during office hours; or by e-mail through ANGEL. Please use the drop boxes to submit all assignments. DO NOT manually email me your assignments. Your assignments will be automatically email to me via your virtual lab profile and/or by use the drop boxes.

Grading and Evaluation Criteria

40% of your grade will be based on the 5 LESSON EXAMS and the FINAL EXAM for a total of 6 exams. The lowest grade of the 6 exams will be dropped from your total EXAM GPA. For example, if you already have an "A" average with all grades included, you may decide not to take the FINAL EXAM, and your FINAL EXAM will count as a zero and be dropped, thus still leaving you an "A" average. All exams are composed of multiple choice and True/False questions. The FINAL examine is cumulative.

30% of the grade is based on quizzes. You may take each of the quizzes many times as you like before the quiz is shut-off. All 14 quizzes have been designed to shut-off at designated dates after which you will no longer be able to see or take the quizzes. Only your highest quiz from each of the chapters will count, be sure to take the quiz before its designated shut-off date.

26% of the grade is based on keeping a project notebook of a simulated lab. Students are asked to obtain a small notebook to enter the answers to the Hands-On Projects and Case Projects at the end of each chapter in the text.

4% of the grade is based on your CertBlaster EXAM, taken from the provided CD-ROM disk provided within your book, Tamara Dean, Network+ Guide to Networks, 5th Edition. Course Technology - Cengage Learning, 2010, ISBN-13: 9781423902454.

This CD-ROM is required for the course. You will be able to take the EXAM on the CD as many times as you like and submit whichever grade instance of the EXAM you like as long as its before the shut-off date. I recommend the highest grade you achieved within the se the ANGEL drop box to upload your copy of the EXAM.

Virtual Project Labs

In addition to the text book, each student should get or have purchased a Passcode certificate that allows the student to access the Virtual lab hosted by LabMentors. This can bought separately or at a discount with the purchase of the book. The hosted site is at: http://coursetunnel.labmentors.com/html/students/login.php . There are a total of 12 Labs assigned to this course, for a total of 100 points. The first four labs are assigned 5 points each (20 points total). The next 8 labs are assigned 10 points each (80 points total). Each Lab is graded as Completed or Incomplete. You will get the full points for the Lab if it's Completed. You will receive 0 (zero) points if the Lab is Incomplete. Please note the shut-off dates for each of the Labs as they need to be completed before the designated shut-off dates. You will need perform a one time step of assigning your instructor's email address (mlwilliams@nctc.edu) to your Virtual Lab profile when you register online at the Virtual Lab website. You will also need to use the drop box each time you complete a Virtual Lab Project assignment. You will attach your latest Lab Report (a Word document with a Print-Screen of Completion) into the drop box before the designated shut-off date.

Grading Policy & Procedures	There are four weighted categories of grades: Quizzes are weighted at 30 % Exams are weighted at 40% Simulated Lab Cases are weighted at 26% Certblaster Exam is weighted at 4 % Each category will produce a score from 0 to 100. The overall course grade will be: (Practice Quizzes Average * .20) + (Exam Average * .40) + (Simulated

	Lab Case Average * .26) + (Certblaster Exam * .04)

14-Week Course Outline

The following outline does **NOT** contain shut-off dates for Quizzes and Exams and Simulated Labs see schedule times within ANGEL under Lessons.

Week	**Topics**	**Chapter Readings**
1	An Introduction to Networking Networking Standards and the OSI Model	Chapter 1 Chapter 2
2	Transmission Basics and Networking Media	Chapter 3
3	Introduction to TCP/IP Protocols	Chapter 4
4	Topologies and Ethernet Standards	Chapter 5
5	Network Hardware	Chapter 6
6	WANs and Remote Connectivity	Chapter 7
7	Wireless Networking	Chapter 8
8	Network Operating Systems	Chapter 9
9	In-Depth TCP/IP Networking	Chapter 10
10	Voice and Video Over IP	Chapter 11
11	Network Security	Chapter 12
12	Troubleshooting Network Problems	Chapter 13
13	Ensuring Integrity and Availability	Chapter 14
14	Network Management	Chapter 15
	Certblaster Exam	
FINAL EXAM	Comprehensive	5/10

Other Pertinent Information	Dropping Courses: If a student's personal circumstances dictate that he/she needs to reduce his/her academic load, that student will confer with a counselor for assistance in adjusting the number of courses being taken. A grade of "W" will be given to students who officially withdraw from a course, or "drop", at least by ***Friday of the 12th week*** of a long term, or a proportional number of weeks prior to the end of a summer session. Any drops after this time will be made with the approval of the instructor and the Department Chair. It is the student's responsibility to initiate the action necessary to drop courses under the conditions outlined above. This requires the completion of a form

	available in the Registrar's Office.
Scholastic Integrity	Scholastic dishonesty shall include, but not be limited to cheating on a test, falsely identifying yourself or another person, plagiarism, and collusion. See *Student Handbook* "Student Rights & Responsibilities: Student Conduct [FLB-(LOCAL)]" #18.
ADA Statement	North Central Texas College does not discriminate on the basis of disability for admission or access to its programs. The College is committed to providing equal access to its students with disabilities by providing appropriate accommodations; a variety of services and resources are made available through the ACCESS Department. Students are responsible for notifying the ACCESS Department of their need for assistance. Students with documented disabilities, such as mobility impairment, hearing or visual impairment, learning, and/or psychological disorders are eligible for services. **ACCESS Program:** The ACCESS Program provides accommodations for students who have a documented disability. A disability is anything that can interfere with learning, such as a learning disability, psychological challenge or physical illness or injury. Accommodations may include extra time on tests, tests in a non-distracting environment, note taker in class, etc. On the Corinth Campus, contact: Robin Truhe (rtruhe@nctc.edu, 940-498-6207) or Penny Cogbill (pcogbill@nctc.edu, 940-498-6212) or Nicole Walton (nwalton@nctc.edu, 940-498-6224 in Suite 170. On the Gainesville and Bowie Campuses, contact Yvonne Sandmann (ysandmann@nctc.edu, (940) 668-7731 ext. 4321) in Room 112.
EEOC Statement	North Central Texas College does not discriminate on the basis of race, color, national origin, gender, religion, age, or disability in the employment or the provision of services.

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Date last modified: January 14, 2011.
mlwilliams@nctc.edu