#### CHATTANOOGA STATE TECHNICAL COMMUNITY COLLEGE CHATTANOOGA, TENNESSEE BUSINESS AND INFORMATION SYSTEMS DIVISION COURSE SYLLABUS

# NW 207 – Advanced Network Management

Instructor: Phone: E-mail: Class Hours/Credit Hours: 3/3 Semester: Office:

# **Course Description**

Provides knowledge and skills needed to install and configure a Microsoft Windows Server and Linux server and perform day-to-day administration tasks in a Microsoft Windows and Linux-based network.

Prerequisites: NW 205 or instructor's consent.

# Textbook

Managing and Maintaining a Microsoft Windows Server 2003 Environment (70-290) textbook and Managing and Maintaining a Microsoft Windows Server 2003 Environment (70-290) Lab manual (Microsoft Press, 2004). And Getting Started with Linux: Novell's Guide to CompTIA's Linux+ (Course 3060) by <u>Novell, Jason W</u> <u>Eckert</u> Course Technology, 05/2006 ISBN: 141883730X

# I Program Student Learning Outcomes (PSLO):

**PSLO1:** Apply problem solving techniques to develop the necessary logic for the solution of a problem

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	CLSO1.	Install and troubleshoot installation of Windows Server 2003 and Red Hat Linux.						
	CLSO2.	Understand on how to plan, create, and modify new user accounts.						
	CSLO3.	Understand and demonstrate how to apply best practices for creating user accounts.						
	CSLO4.	Understand and demonstrate how to plan and create local and global groups						
	CSLO5	Demonstrate how to create and use template accounts						
	CSLO6.	Understand the importance of establishing a password policy and demonstrate how to reset user account passwords.						
	CSLO9.	Demonstrate how to add, share and troubleshoot a network printer.						
	CSLO12.	Understand the importance and demonstrate how to assign rights to users to perform server operator functions.						
PSLO3:	Demonstrate, through verbal and written means, knowledge of computer terminology and concepts, a historical perspective of the computer industry, and a basic understanding of emerging trends. <b>CLSO1.</b> Install and troubleshoot installation of Windows Server 2003 and Red Hat Linux.							
	CLSO2.	Understand on how to plan, create, and modify new user accounts.						
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- **CSLO3.** Understand and demonstrate how to apply best practices for creating user accounts.
- **CSLO4.** Understand and demonstrate how to plan and create local and global groups
- **CSLO5** Demonstrate how to create and use template accounts.
- **CSLO6.** Understand the importance of establishing a password policy and demonstrate how to reset user account passwords.
- **CSLO7.** Understand and demonstrate how to plan and share folders for applications, data, and user's private data.
- **CSLO8.** Understand and demonstrate how to set up and administer NTFS and NFS permissions in a multiple domain environment and manage file & folder permissions.
- **CSLO9**. Understand and demonstrate how to copy and move folders and files
- **CSLO12** .Understand the importance and demonstrate how to assign rights to users to perform server operator functions. (I2)

**PSLO4:** Use hardware (computers, peripherals and related equipment, such as networks, clusters, and other emerging technologies), and software (application, system and internet- and web-based).

- CSLO1: Install and troubleshoot installation of Windows Server 2003 and Red Hat Linux
- **CSLO3:** Understand and demonstrate how to apply best practices for creating user accounts.
- **CSLO4:** Understand and demonstrate how to plan and create local and global groups
- **CSLO5** Demonstrate how to create and use template accounts.
- **CSLO7.** Understand and demonstrate how to plan and share folders for applications, data, and user's private data.
- **CSLO8.** Understand and demonstrate how to set up and administer NTFS and NFS permissions in a multiple domain environment and manage file & folder permissions.
- **CSLO9:** Understand and demonstrate how to copy and move folders and files
- **CSLO12**. Understand the importance and demonstrate how to assign rights to users to perform server operator functions.

# **PSLO6:** Demonstrate an ability to work effectively in a team environment

# CLSO1.Install and troubleshoot installation of Windows Server 2003 and Red Hat Linux.<br/>CSLO2. Understand on how to plan, create, and modify new user accounts.(I6CSLO3:Understand and demonstrate how to apply best practices for creating user accountsCSLO4:Understand and demonstrate how to plan and create local and global groupsCSLO5Demonstrate how to create and use template accounts.CSLO6.Understand the importance of establishing a password policy and demonstrate how to<br/>reset user account passwords

- **PSLO7:** Develop a view, demonstrated through projects and oral and written communications, of the societal impact of technology, and issues related to appropriate use, ethics, security and privacy.
  - CSLO1: Install and troubleshoot installation of Windows Server 2003 and Red Hat Linux.
  - **CSLO6.** Understand the importance of establishing a password policy and demonstrate how to reset user account passwords.
  - **CSLO10:** Demonstrate how to add, share and troubleshoot a network printer.
  - **CSLO11:** Monitor and optimize the performance of your hard disk. Monitor system performance.

# II. ASSESSMENT WEIGHTS AND GRADING SCALE Assessments:

# Assessments:

# Grades are based on a total of 3,125 pts.

Server Build Projects: (total of 1,000 pts. = 500 pts. ea.)

Student will build one (1) Windows File Server during the semester – (PSLO 1, 3,4,6,7 - CSLO 1 – 12)

Student will build one (1) Suse Linux File Server during the semester – (PSLO 1, 3,4,6,7 - CSLO 1 - 12)

Chapter Tests: (Total of 2,215 pts. = 125 pts. ea.)

Students will complete a total of 17 chapter tests that cover Windows Server 2003 & SUSE Linux (PSLO 1, 3,4,6,7 - CSLO 1 – 12)

**Grade Weight:** FINAL GRADE IS BASED ON A TOTAL OF 3,215 pts. divided by the total points the student has earned.

# III. <u>ALIGNMENT OF ASSESSMENTS WITH, COURSE STUDENT LEARNING</u> <u>OUTCOMES</u>:

CSL01	CSLO2	CSLO	CSLO	CSLO5	CSLO6	CSL07	CSLO8	CSLO9	CSLO	CSL01	CSL01
		3	4						10	1	2
Ch 1	Ch 1 –	Ch 1	Ch 1	Ch 1 –	Ch 1 –	Ch 1 –	Ch 1 –	Ch 1 –	Ch 1	Ch 1 –	Ch 1 –
- 11	11	- 11	- 11	11 tests	11	11	11 tests	11 tests	- 11	11	11
tests	tests &	tests	tests	&	tests &	tests &	&	&	tests	tests &	tests
&	Windo	&	&	Windo	Windo	Windo	Windo	Windo	&	Windo	&
Wind	ws and	Wind	Wind	ws and	ws and	ws and	ws and	ws and	Wind	ws and	Windo
ows	SUSE	ows	ows	SUSE	SUSE	SUSE	SUSE	SUSE	ows	SUSE	ws
and	Linux	and	and	Linux	Linux	Linux	Linux	Linux	and	Linux	and
SUSE	file	SUSE	SUSE	file	file	file	file	file	SUSE	file	SUSE
Linux	/applic	Linux	Linux	/applica	/applic	/applic	/applica	/applica	Linux	/applic	Linux
file	ation	file	file	tion	ation	ation	tion	tion	file	ation	file
/appli	Server	/appli	/appli	Server	Server	Server	Server	Server	/appli	Server	/applic
cation	build	cation	cation	build	build	build	build	build	cation	build	ation
Server		Serve	Serve						Serve		Server
build		r	r						r		build
		build	build						build		

# VI. Topics:

Unit

#### Topic

- 1. Managing and Maintaining Server 2003 and Linux
- 2. Managing and Maintaining Users, Groups, and Computers
- 3. Managing and Maintain Shared Resources
- 4. Managing and Maintaining Hardware
- 5. Configuring Network Services and Security
- 6. Linux Basics and SLES 9 Installation
- 7. Use the Linux Desktop
- 8. Locate and Use Help Resources in the Linux system
- 9. Use the YaST Management Utility
- 10. Manage Directories and Files in Linux
- 11. Work with the Linux Shell and Edit Text Files
- 12. Use the Command Line Interface to Administer the System
- 13. Processes, Jobs, and Runlevels
- 14. Manage the Network Configuration
- 15. Manage Network Services: DNS and file and print services
- 16. Manage Network Services: NIS, Mail, and xinetd
- 17. Manage security
- 18. Hardware Basics

# **Grading Scale:**

Final grades will be determined using the current college policy concerning grades as found in the current college catalog.

90 - 100 = A 80 - 89 = B 70 - 79 = C 65 - 69 = D Below 65 = F

# **Course Delivery Format**

Faculty may require on-line activities and assignments to include on-line tests and submission of all written and online communications. The extent of on-line activities/assignments may vary by course but will be specified on the syllabus.

#### (Place the appropriate following Format descriptions into the syllabus)

**Standard Format** – This format is the traditional format and may use an online format to provide access to "static" materials which include the syllabus, course material, contact information, and presentations. Faculty must make available when requested a copy of syllabus and any other instructor provided course materials, including their contact information. Faculty may require on-line activities and assignments to include online tests and submission of all written and on-line communications. The extent of on-line activities/assignments may vary by course but will be specified on the syllabus.

**Hybrid Format** – This format requires significant online activity. Students in hybrid classes must access course content and assessments using the Internet in order to pass the class, whether it meets full-time or part-time in the classroom. Faculty need not hand out a copy of the syllabus and any other required course material, including their contact information.

**On-line Format** – This format requires that the entire class be conducted online. The syllabus, course material, contact information, and presentations will be provided online through the course management system. Assessments may be conducted online or in a proctored environment.

#### **College Policies**

This class is governed by the policies and procedures stated in the current Chattanooga State Student Handbook. Additional or more specific guidelines may apply.

#### **ADA Statement**

Students who have educational, psychological, and/or physical disabilities may be eligible for accommodations that provide equal access to educational programs and activities at Chattanooga State. These students should notify the instructor immediately, and should contact Disabilities Support Services within the first two weeks of the semester in order to discuss individual needs. The student must provide documentation of the disability so that reasonable accommodations can be requested in a timely manner. All students are expected to fulfill essential course requirements in order to receive a passing grade in a class, with or without reasonable accommodations.

#### **Disruptive Students**

The term "classroom disruption" means – student behavior that a reasonable person would view as substantially or repeatedly interfering with the activities of a class. A student who persists in disrupting a class will be directed by the faculty member to leave the classroom for the remainder of the class period. The student will be told the reason(s) for such action and given an opportunity to discuss the matter with the faculty member as soon as practical. The faculty member will promptly consult with the division dean and the college judicial officer. If a disruption is serious, and other reasonable measures have failed, the class may be adjourned, and the campus police summoned. Unauthorized use of any electronic device constitutes a disturbance. Also, if a student is concerned about the conduct of another student, he or she should please see the teacher, department head, or division dean.

#### **Affirmative Action**

Students who feel that he or she has not received equal access to educational programming should contact the college affirmative action officer.

#### Academic Integrity/Academic Honesty

In their academic activities, students are expected to maintain high standards of honesty and integrity. Academic dishonesty is prohibited. Such conduct includes, but is not limited to, an attempt by one or more students to use unauthorized information in the taking of an exam, to submit as one's own work, themes, reports, drawings, laboratory notes, computer programs, or other products prepared by another person, or to knowingly assist another student in obtaining or using unauthorized materials. Plagiarism, cheating, and other forms of academic dishonesty are prohibited. Students guilty of academic misconduct, either directly or indirectly through participation or assistance, are immediately responsible to the instructor of the class. In addition to other possible disciplinary sanctions, which may be imposed through the regular institutional procedures as a result of academic misconduct, the instructor has the authority to assign an "F" or zero for an activity or to assign an "F" for the course.

#### **Email Communication**

Please note all communication with instructors about your course work should be through the eLearn Email system. For assistance on how to use the eLearn Email tool go to this url:

<u>http://river.chattanoogastate.edu/orientations/Student\_PDFs/eLearn\_eMail\_aug09.pdf</u> For all other communication the official email system used by the college is through Tiger Mail. This is accessible by clicking the blue paw icon from the top right hand side of your Tiger Web home page https://tigerweb.chattanoogastate.edu/cp/home/display/login

# The instructor reserves the right to modify this syllabus in writing during the course of the semester. Instructor Policies

# **Instructor Absence**

In the event of a scheduled instructor absence, a substitute instructor, as alternate out-of-class assignment, or a lab assignment appropriate to the class will be provided. In case of an emergency instructor absence, every effort will be made to provide an appropriate out-of-class assignment or lab.

# **Class Policies**

- Students are expected to read each assigned chapter according to the schedule posted on eLearn (see Course Content module on eLearn).
- Homework assignments, which may require the use of computer and Internet skills, will be due **no later than** the due date posted on eLearn. The lowest assignment score will be dropped.
- All output from assignments should adhere to industry and scholastic standards with respect to grammar, language usage, spelling and format.
- Quizzes may be scheduled in class, or posted in the Assessments module on eLearn. Those available on eLearn **must be completed by due date** For classroom-based sections, quizzes scheduled in class may only be taken on that class date. **No makeup** quizzes will be given. The lowest quiz score will be dropped.
- o It is the student's responsibility to be in attendance and on time for scheduled exams.
- Each student must produce his or her own work, except in those cases where students have permission to work together, such as in group projects.
- All work must be submitted in electronic form using a format compatible with Microsoft, and posted to the appropriate Assessment, Discussion or Dropbox tool on eLearn.
   Work submitted to an incorrect Discussion topic, or Dropbox, will NOT be graded.
- Except where instructed otherwise, students will not email assignments to instructor.
  When email is requested, students will use the Email tool on eLearn