#### **General Course Information**

Course: CRN 10374, CST K177 Server Technologies, Room B227 Hours: Lecture: 1720 -2005, Lab: 2010 - 2150 Instructor: Ronald Leask Office: Three Rivers Community College Room C170 Office Hours: TBD, until I get my complete schedule. Office Phone: 860 885-2391 **E-mail:** <u>rleask@trcc.commet.edu</u>, Please e-mail me if you cannot attend class MOAC Home / IT Professionals / Windows Server 2008

#### ТЕХТВООК

70-642: Windows Server 2008 Network Infrastructure Configuration

Microsoft Official Academic Course March 2010, ©2009

**Textbook:** 1).Windows Server 2008: Network Infrastructure Configuration, Microsoft Certified Technology Specialist Exam 70-642, 2009, John Wiley & Sons, Inc, ISBN 978-0-470-22515-8

**Lab Manual:** 2). Use Microsoft On-line Laboratory, Use the detailed Instructions and copy all lab questions and paste them in WORD, answer all questions and submit to instructor. Add significant figures to lab submission.

**Reference: Textbooks**, (1) MCTS, Exam 70-642, Configuring Windows Server 2008 Network Infrastructure, Training Kit, Tony Northrup and J. C. Mackin, 2008, John Wiley & Sons, Inc,

(2) The Complete Guide to Servers and Server+, Thomson/Delmar Learning, Michael Graves, ISBN- 13:978-1-4180-2023-1

**COURSE OBJECTIVES:** *Prerequisite: CSA*\* *K105 or permission of the instructor*. Students will acquire advanced technical knowledge of Windows Server 2008 software and technology, including installation, configuration, upgrading, maintenance, troubleshooting, security and authentication. Additionally, students will acquire an advanced knowledge of network infrastructure concepts. They will learn how to use a virtual processor to host the Windows Server 2008 software, including software configuration of Dynamic Host Configuration Protocol (DHCP), Domain Name Server (DNS), Routing and Remote Access Server (RRAS), Internet Protocol Security (IPSec), File and Print services and, detailed knowledge of programming related terms and the differences between popular client and server models.

#### **COUSE OUTCOMES:**

- Understand the purpose, function and use of virtual processors.
- Knowledge of the technical requirements and specifications of Windows Server 2008.

- Understand the components and functions of a server
- Knowledge of Internet Protocol Classful and Classesless addressing
- Understand the functions, use and configuration of the Dynamic Host Configuration Protocol (DHCP).
- Understand the functions, use and configuration of the Domain Name Server(s) (DNS)
- Understand the functions, use and configuration of the Routing and Remote Access Server (RRAS)
- Knowledge of the technical requirements of the Internet Protocol Security (IPSec),
- Knowledge of programming related terms and the differences between popular client and server models.

Overheads will distributed in class or put on Blackboard.

- Optional: Use an external hard-drive ~ 60 Bytes, Cost ~ \$70.00, to hold Windows Virtual PC and Server 2008 software and any changes made in Lab. All laboratory computers are wiped clean daily. An alternative to the hard drive is to host Windows Server 2008 on a personal computer. Will get a copy of Windows Server 2008 and Virtual PC from MSDNAA or Microsoft down loads. A copy of Windows Server 2008, 120 evaluation edition, is also included on DVD with text book. Windows 2008 will be hosted on a virtual machine.(Virtual PC, for PCs, or V-Box or VMware Fusion, for Mac or PCs)
- 2. It will take two DVDs for virtual PC and Severs software
- 3. Optional: Install a copy of Windows Server 2008, provided with your text or obtained from the Internet, on a virtual processor. (Virtual PC, for PCs, or V-Box for Mac or PCs) hosted on your laptop or hosted on an external hard drive. Note: Virtual PC will not support a 64 bit version of Windows Server 2008.

### GRADING AND EVALUATION CRITERIA:

70% of grade is based on lab assignments30% of grade is based on end of chapter quizzes, and examinationsStudents should keep a course notebook

### **Student with Disabilities:**

If you have a disability that may affect your progress in this course, please meet with a Disability Service Provider (DSP) as soon as possible. Please note that accommodations cannot be provided until you provide written authorization from a DSP.

#### **TRCC Disabilities Service Providers** Counseling & Advising Office Room A-119

|--|

**Academic Integrity:** Academic integrity is essential to a useful education. Failure to act with integrity severely limits a person's ability to succeed in the classroom and beyond. Furthermore, academic dishonesty erodes the legitimacy of every degree awarded by Three Rivers Community College. In this class and the course of your academic career, present only your own work; clearly document the sources of the material you use from others; and act all times with honor. Students may help one another to solve problems related to the online labs or when studying but all students are expected to do their own work in quizzes and exams.

**Digication:** All students are required to maintain an online learning portfolio in Digication that uses the college template. Using this electronic tool students will have the opportunity to build their portfolio and monitor their growth in college-wide learning. The Three Rivers General Education Assessment Team will select and review random works, from Digication portfolios, to document the overall student college educational experience. The student will keep his/her portfolio and may continue to use the Digication account after graduation.

**Microsoft Official Academic Course Labs (MOAC Labs)** Online is a cloud-based environment that enables students to conduct exercises using real Microsoft products. These are not simulations but instead are live virtual machines where students can perform any activities they would on a local virtual machine. MOAC Labs Online relieves the need for local setup, configuration and most troubleshooting tasks. Rapid changes in software and hardware, authentic job training and experience, and anytime, anywhere access become the new reality of today's student using the cloud-base environment.

**Microsoft Labs** Online **(MLO):** All labs in this course are online and require a **Windows Live ID** and a **unique access code** to access the labs. The access code can be bundled with the text or bought separately. The computers in Room B227 can be used to access the labs or the labs can be accessed from any location using a current computer, the web and the Internet. MLO requires Internet Explorer, another type of browser will not support MLO.

### MOAC Labs Online Hardware and Software and requirements

- A Super VGA monitor with a minimum screen resolution 1024 x 768, with 16 bit color.
- Microsoft Windows XP SP3 or higher

- 32 bit Microsoft Internet Explorer or higher.
- On first use, MOAC Labs Online users must install, when prompted the "Virsoft ActiveX control" (84KB)
  - Users must have administrative rights on the computer to be able to install the ActiveX control.
  - Failure to install will result in the lab not loading.
  - .NET Framework 2.0 is required. It is installed by default in VistaSP1/Win2008/Win7/Win2008R2.

All material for this course will put on myCommNet and Blackboard for easy access for students. Blackboard is new product and is being rolled out for the first time this fall semester for this course. Consequently we will are have some growing pains in using Blackboard and student patients and help is requested. Blackboard will be used primarily for distribution of materials and may be used for some quizzes or exams.

**<u>MYCOMMNET ALERT</u>** is a system that sends text messages and emails to anyone signed up in the event of a campus emergency. Additionally, TRCC sends messages when the college is delayed or closed due to weather.

All students are encouraged to sign up for myCommNet Alert. A tutorial is available on the Educational Technology and Distance Learning Students page of the web site. This link should be shared with students.

http://www.trcc.commnet.edu/div\_it/educationaltechnology/Tutorials/myCommNetAle rt/MIR3.html

# Syllabus is subject to change to correct errors and add new information when it becomes available

Week	Date (Thursdays)	Chapter/Topic	Quizzes or Exams	Assignments /Labs
1	1/23/14	Course Overview MOAC Labs Online	Get Student's e-mail for Server 2008	Get access to Microsoft Labs
2	1/30/14	Chapter 1 Introduction to Networking Concepts		LAB 1 Introducing Windows Server 2008 Networking
	2/6/14	No Class Thursday, Februa	ary 6, 2014 Profe	essional Day
3	2/13/14	Chapter 2 Installing Microsoft Windows Server 2008 (Possible use of virtual PC or V-Box)		Lab 2 Installing Microsoft Windows Server 2008
4	2/20/14	Chapter 3 Configuring and Managing the Dynamic Host Configuration Protocol (DHCP) Server Role		LAB 3, Configuring and Managing the DHCP Server
			Exam	
5	2/27/14	Chapter 4 Configuring and Managing the Domain Name Server (DNS) Server Role		LAB 4 Configuring and Managing the Domain Name Server (DNS) Server Role
6	3/06/14	Chapter 5 Configuring Routing and Remote Access (RRAS) and Wireless Networking		LAB 5 Configuring Routing and Remote Access (RRAS)
7	3/13/14	Chapter 6 Configuring File Services		LAB 6 Configuring File Services
	3/20/14	No Class March 17-23 2014		
			Exam	
8	3/27/14	Chapter 7 Configuring Print Services		LAB 7 Configuring Print Services
	4/07/14	Student Online Course Evaluations Open for Completion of 15 Week Session		

9	4/03/14	Chapter 8 Maintaining and		LAB 8
		Updating Windows Server 2008		Maintaining and
				Updating
				Windows Server
				2008
10	4/10/14	Chapter 9 Securing Data		LAB 9, Securing
		Transmission and		Data
		Authentication		Transmission and
				Authentication
			Exam	
11	4/17/14	Chapter 10 Configuring		LAB 10
		Network Health		Configuring
				<b>Network Health</b>
	4/18-20/14	Spring Recess-College Closed		
12	4/24/14	Chapter 11 Maintaining		LAB 11
		Windows Server 2008 File		Maintaining
		Services		Windows Server
				2008 File Services
13	5/01/14	Chapter 12 Troubleshooting		LAB 12
				Troubleshooting
14	5/08/14		Exam	
15	5/15/14	Review		
16	5/19/14	Last Day of 15 Week Session		