

ILLINOIS VALLEY COMMUNITY COLLEGE



COURSE OUTLINE

DIVISION: Career and Technical Programs

COURSE: CSN 1231; Network Administration II

Date: Spring 2011

Credit Hours: 3

Prerequisite(s): CSN 1230 (Network Admin I)

Delivery Method:

<input checked="" type="checkbox"/> Lecture	2 Contact Hours (1 contact = 1 credit hour)
<input type="checkbox"/> Seminar	0 Contact Hours (1 contact = 1 credit hour)
<input checked="" type="checkbox"/> Lab	2 Contact Hours (2 contact = 1 credit hour)
<input type="checkbox"/> Clinical	0 Contact Hours (3 contact = 1 credit hour)
<input type="checkbox"/> Online	
<input type="checkbox"/> Blended	

Offered: Fall Spring Summer

IAI Equivalent –**Only for Transfer Courses**-go to <http://www.itransfer.org>:

CATALOG DESCRIPTION:

A continuation of CSN 1230. In this course the student installs a Novell Netware server and attaches clients to it. Advanced network administration and setup are covered. Lecture, two hours; lab, two hours.

GENERAL EDUCATION GOALS ADDRESSED

[See the last page of this form for more information.]

Upon completion of the course, the student will be able:

[Choose those goals that apply to this course.]

- To apply analytical and problem solving skills to personal, social and professional issues and situations.
- To communicate orally and in writing, socially and interpersonally.
- To develop an awareness of the contributions made to civilization by the diverse cultures of the world.
- To understand and use contemporary technology effectively and to understand its impact on the individual and society.
- To work and study effectively both individually and in collaboration with others.
- To understand what it means to act ethically and responsibly as an individual in one's career and as a member of society.
- To develop and maintain a healthy lifestyle physically, mentally, and spiritually.
- To appreciate the ongoing values of learning, self-improvement, and career planning.

EXPECTED LEARNING OUTCOMES AND RELATED COMPETENCIES:

[Outcomes related to course specific goals.]

Upon completion of the course, the student will be able to:

1. Install and configure a Windows Server.
2. Understand Active Directory
3. Configure Windows server and Windows clients with IPv4 and IPv6.
4. Install and configure Dynamic Host Configuration Protocol (DHCP).
5. Install and configure Domain Name System (DNS).
6. Configure advanced file and folder management using Distributed File System and File System Resource Manager.
7. Utilize Remote Access Services.
8. Manage and monitor the network infrastructure

Outcome 1 – Upon completion of the course, the student will be able to install and configure a Windows Server.

Competency 1.1 – the student will review his/her previous knowledge of installing a Windows Server from CSN 1230.

Competency 1.2 – the student will learn any new technologies with the current Windows version

Competency 1.3 – The student will review the minimum requirements to install the different editions of Windows Server

Competency 1.4 – the student will install a server.

Outcome 2 – Upon completion of the course, the student will be able to understand Active Directory.

Competency 2.1 – the student will be able to plan, implement, and maintain an Active Directory Infrastructure

Competency 2.2 – the student will be able to understand how to use Active Directory design to support the organization's goals in the present and the future

Competency 2.3 – the student will be able to understand the Active Directory physical structure and logical design.

Competency 2.4 – the student will be able to replicate Active Directory

Outcome 3 – Upon completion of the course, the student will be able to configure Windows server and Windows clients with IPv4 and IPv6.

Competency 3.1 – the student will review IPv4 and IPv6 concepts taught in CSN 1225 and CSN 1230.

Competency 3.2 – the student will learn how to upgrade from IPv4 to IPv6.

Competency 3.3 – the student will troubleshoot the TCP/IP configuration.

Outcome 4 – Upon completion of the course, the student will be able to install and configure Dynamic Host Configuration Protocol (DHCP).

Competency 4.1 – the student will understand the DHCP concepts and terminology.

Competency 4.2 – the student will implement the DHCP service.

Competency 4.3 – the students will administer and troubleshoot the DHCP environment.

Outcome 5 – Upon completion of the course, the student will be able to install and configure Domain Name System (DNS).

Competency 5.1 - the student will understand the DNS concepts and terminology.

Competency 5.2– the students will implement the DNS service.

Competency 5.3– the students will administer and troubleshoot the DNS environment.

Outcome 6 – Upon completion of the course, the student will be able to configure advanced file and folder management using Distributed File System and File System Resource Manager.

Competency 6.1- the student will review his/her previous knowledge of file systems from CSN 1230.

Competency 6.2 – the student will install the file server role.

Competency 6.3 – the student will learn how Distributed File Systems are used in Windows Server.

Outcome 7 – Upon completion of the course, the student will be able to utilize Remote Access Services.

Competency 7.1 – the student will be able to explain why remote access services are needed.

Competency 7.2 – the student will be able to configure remote access services.

Competency 7.3 – the student will learn wireless access configuration in Windows Server

Outcome 8 – Upon completion of the course, the student will be able to manage and monitor the network infrastructure

Competency 8.1 – the student will use the Microsoft Baseline Security Analyzer to measure network performance.

Competency 8.2 – the student will use third party tools to analyze network performance.

Competency 8.3 – the student will learn to back up and restore data using Windows Server tools.

Competency 8.4 – the student will learn about third party back up tools.

COURSE TOPICS AND CONTENT REQUIREMENTS:

Installing Windows Server 2008.
Active Directory Design and Security Concepts.
Account Management.
Windows File and Print Services.
Configuring Group Policy.
Configuring DNS for Active Directory.
Configuring and Maintaining the Active Directory Infrastructure.
Active Directory Certificate Services.
Additional Active Directory Server Roles.
Server Management and Monitoring.
Windows Server 2008 Active Directory Configuration Resources.

INSTRUCTIONAL METHODS:

Classroom lecture and demonstration
Student hands-on lab exercises

INSTRUCTIONAL MATERIALS:

- MCTS Guide to Configuring Microsoft® Windows Server® 2008 Active Directory (Exam #70-640), 1st Edition
- Greg Tomsho - Yavapai College
- ISBN-10: 1423902351 ISBN-13: 9781423902355
- ©2010 Published

STUDENT REQUIREMENTS AND METHODS OF EVALUATION:

Students will successfully complete all assigned hands-on activities performed during class/lab.

Students will successfully complete and turn in all independent hands-on application assignments.

Students will successfully complete quizzes on the topic discussed.

Students will successfully complete a midterm and final written exam covering terminology.

Students will successfully complete a midterm and final hands-on exam covering tasks assigned.

90 – 100	A
80 – 89	B
70 – 79	C
60 – 69	D

OTHER REFERENCES

Course Competency/Assessment Methods Matrix

CSN 1231; Network Administration II		Assessment Options																															
For each competency/outcome place an "X" below the method of assessment to be used.	Assessment of Student Learning	Article Review	Case Studies	Group Projects	Lab Work	Oral Presentations	Pre-Post Tests	Quizzes	Written Exams	Artifact Self Reflection of Growth	Capstone Projects	Comprehensive Written Exit Exam	Course Embedded Questions	Multi-Media Projects	Observation	Writing Samples	Portfolio Evaluation	Real World Projects	Reflective Journals	Applied Application (skills) Test	Oral Exit Interviews	Accreditation Reviews/Reports	Advisory Council Feedback	Employer Surveys	Graduate Surveys	Internship/Practicum /Site Supervisor Evaluation	Licensing Exam	In Class Feedback	Simulation	Interview	Written Report	Assignment	
	Direct/ Indirect	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	I	I	I	I	D	D							
Assessment Measures – Are direct or indirect as indicated. List competencies/outcomes below.																																	
Outcome 1 – Upon completion of the course, the student will be able to install and configure a Windows Server.					X			X	X																								X
Outcome 2 – Upon completion of the course, the student will be able to understand Active Directory.					X			X	X																								X
Outcome 3 – Upon completion of the course, the student will be able to configure Windows server and Windows clients with IPv4 and IPv6.					X			X	X																								X
Outcome 4 – Upon completion of the course, the student will be able to install and configure Dynamic Host Configuration Protocol (DHCP).					X			X	X																								X
Outcome 5 – Upon completion of the course, the student will be able to install and configure Domain Name System (DNS).					X			X	X																								X

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	Assessment Measures – Are direct or indirect as indicated. List competencies/outcomes below.	Direct/ Indirect	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	I	I	I	I	D	D								
	Outcome 6 – Upon completion of the course, the student will be able to configure advanced file and folder management using Distributed File System and File System Resource Manager.					X			X	X																								
	Outcome 7 – Upon completion of the course, the student will be able to utilize Remove Access Services.				X			X	X																			X						
	Outcome 8 – Upon completion of the course, the student will be able to manage and monitor the network infrastructure				X			X	X																		X							