



ILLINOIS VALLEY COMMUNITY COLLEGE

COURSE OUTLINE

DIVISION: Workforce Development

COURSE: CSN 2250 Specialty Servers

Date: December 2018

Credit Hours: 2

Prerequisite(s): CSN 1231 and CSO 2200

Delivery Method:

<input checked="" type="checkbox"/> Lecture	.5 Contact Hours (1 contact = 1 credit hour)
<input type="checkbox"/> Seminar	0 Contact Hours (1 contact = 1 credit hour)
<input checked="" type="checkbox"/> Lab	3 Contact Hours (2-3 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:

This course will covers working with heterogeneous computer systems. The student will work with current server, LAN, and WAN technology and be able to demonstrate how the systems interact with each other. Pre-requisites: CSN 1231 – Network Administration II; and CSN 1225 – Core Networking Technologies.

GENERAL EDUCATION GOALS ADDRESSED

[See last page for Course Competency/Assessment Methods Matrix.]

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

[Choose up to three goals that will be formally assessed in this course.]

- To apply analytical and problem solving skills to personal, social, and professional issues and situations.
- To communicate successfully, both orally and in writing, to a variety of audiences.
- To construct a critical awareness of and appreciate diversity.
- To understand and use technology effectively and to understand its impact on the individual and society.
- To develop interpersonal capacity.
- To recognize what it means to act ethically and responsibly as an individual and as a member of society.
- To recognize what it means to develop and maintain a healthy lifestyle in terms of mind, body, and spirit.
- To connect learning to life.

EXPECTED LEARNING OUTCOMES AND RELATED COMPETENCIES:

[Outcomes related to course specific goals. See last page for more information.]

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

1. Effectively demonstrate a Microsoft workstation and Linux server communicating, sharing files and devices.
2. Effectively demonstrate a Linux workstation and Microsoft server communicating, sharing files and devices.
3. Effectively demonstrate setting up a DNS server and show it resolving domain names
4. Effectively demonstrate setting up a DHCP server and show it dispersing IP addresses
5. Use troubleshooting skills to solve networking problems.

The student **may select** to learn how to:

6. Setup an email server and show workstation clients interacting with it.
7. Set up a web server and show workstation clients interacting with it.
8. Set up virtual servers and workstations using current technology.

Outcome 1 – Upon completion of the course, the student will be able to effectively demonstrate a Microsoft workstation and Linux server communicating, sharing files and devices.

Competency 1.1 – The student will install a Microsoft workstation in the current version.

Competency 1.2 – The student will install any distribution of Linux server in the current version.

Competency 1.3 – The student will set up the security for sharing on the server and map the network drives on the workstation.

Outcome 2 – Upon completion of the course, the student will be able to effectively demonstrate a Linux workstation and Microsoft server communicating, sharing files and devices.

Competency 2.1 – The student will install any distribution of Linux workstation in the current version.

Competency 2.2 – The student will install a Microsoft server in the current version.

Competency 2.3 – The student will set up the security for sharing on the server and map the network drives on the workstation.

Outcome 3 – Upon completion of the course, the student will be able to effectively demonstrate setting up a DNS server and show it resolving domain names.

Competency 3.1 – The student will install the DNS services on a server of choice.

Competency 3.2 – The student will change the DNS configuration on a workstation to retrieve DNS information from server.

Outcome 4 – Upon completion of the course, the student will be able to effectively demonstrate setting up a DHCP server and show it dispersing IP addresses.

Competency 4.1 – The student will install the DHCP services on a server of choice.

Competency 4.2 – The student will change demonstrate a workstation retrieving IP address information from the installed server.

Outcome 5 – Upon completion of the course, the student will be able to use troubleshooting skills to solve networking problems.

Competency 5.1 – The student will demonstrate troubleshooting skills through all the projects created in outcomes detailed in this outline.

Outcome 6 – Upon completion of the course, the student will be able to setup an email server and show workstation clients interacting with it.

Competency 6.1 – The student will install email services on a Linux server.

Competency 6.2 – The student will activate email accounts and show any workstation accessing the email through a web interface.

Outcome 7 – Upon completion of the course, the student will be able to set up a web server and show workstation clients interacting with it.

Competency 7.1 – The student will install web services (Apache) on a Linux server.

Competency 7.2 – The student will create a simple web page and show any workstation accessing the web page.

Outcome 8 – Upon completion of the course, the student will be able to set up virtual servers and workstations using current technology.

Competency 8.1 – The student will be able to distinguish between the different virtual environments offered by companies.

Competency 8.2 - The student will install at least one virtual server and one workstation on a single machine.

MAPPING LEARNING OUTCOMES TO GENERAL EDUCATION GOALS

[For each of the goals selected above, indicate which outcomes align with the goal.]

Goals	Outcomes
First Goal	
To apply analytical and problem solving skills to personal, social, and professional issues and situations	<ol style="list-style-type: none"> 1. Effectively demonstrate a Microsoft workstation and Linux server communicating, sharing files and devices. 2. Effectively demonstrate a Linux workstation and Microsoft server communicating, sharing files and devices. 3. Effectively demonstrate setting up a DNS server and show it resolving domain names 4. Effectively demonstrate setting up a DHCP server and show it dispersing IP addresses 5. Use troubleshooting skills to solve networking problems. 6. Setup an email server and show workstation clients interacting with it. 7. Set up a web server and show workstation clients interacting with it. 8. Set up virtual servers and workstations using current technology
Second Goal	
To communicate successfully, both orally and in writing, to a variety of audiences.	<ol style="list-style-type: none"> 1. Effectively demonstrate a Microsoft workstation and Linux server communicating, sharing files and devices. 2. Effectively demonstrate a Linux workstation and Microsoft server communicating, sharing files and devices. 3. Effectively demonstrate setting up a DNS server and show it resolving domain names 4. Effectively demonstrate setting up a DHCP server and show it dispersing IP addresses 5. Use troubleshooting skills to solve networking problems. 6. Setup an email server and show workstation clients interacting with it. 7. Set up a web server and show workstation clients interacting with it. 8. Set up virtual servers and workstations using current technology

COURSE TOPICS AND CONTENT REQUIREMENTS:

Installing Linux and Microsoft workstations
 Installing Linux and Microsoft servers
 Activating services/roles in various servers
 Communication between heterogeneous servers and workstations
 Troubleshooting problems that may occur
 Finding information through current Internet and other sources

INSTRUCTIONAL METHODS:

Student hands-on lab exercises
 Library and Internet research

INSTRUCTIONAL MATERIALS:

- Labs such as CTC 209 and CTC 107 or similar stand-alone network environment where the student has access to change/add to hardware and software environments
- Current Microsoft and Linux software for Servers and Workstations
- MS-Project – latest version

STUDENT REQUIREMENTS AND METHODS OF EVALUATION:

A= 90-100

B= 80-89

C= 70-79

D= 60-69

F= 0-59

OTHER REFERENCES

Course Competency/Assessment Methods Matrix

(Dept/# Course Name)	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
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 1 – Upon completion of the course, the student will be able to effectively demonstrate a Microsoft workstation and Linux server communicating, sharing files and devices.				X						X							X									X			X	X		
Outcome 2 – Upon completion of the course, the student will be able to effectively demonstrate a Linux workstation and Microsoft server communicating, sharing files and devices.				X						X							X								X			X	X			

