

ILLINOIS VALLEY COMMUNITY COLLEGE



COURSE OUTLINE

DIVISION: Career and Technical Programs

COURSE: CSO 2200; UNIX Operating System

Date: Fall 2011

Credit Hours: 3

Prerequisite(s): previous computer experience

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:

This course will present a theoretical and hands-on study of the UNIX operating system. Topics include operating system concepts, terminology, file system structure, network communication, and network management.

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. obtain a brief history and introduction to the UNIX operating system.
2. use the UNIX vi editor to customize configuration files.
3. discuss the file structure of the UNIX system.
4. explore kernels and shells and their role in the UNIX system.
5. use graphical systems such as Xwindow.
6. install the UNIX/Linux operating system.
7. perform the routine System Administrator duties that are necessary in a UNIX environment.

Outcome 1 -- Upon successful completion of the course, the student will obtain a brief history and introduction of the UNIX operating system.

Competency 1.1 – the student will understand how operating systems work in a PC, mainframe and network environment.

Competency 1.2 – the student will be able to compare and contrast different strains of UNIX and know the history behind each one.

Competency 1.3 – The student will be able to know the differences between UNIX and Linux.

Competency 1.4 – the student will know the role of the system administrator compared to ordinary users.

Competency 1.5 – the student will know about the Internet's role in Linux development and documentation

Outcome 2 – Upon successful completion of the course, the student will be able to use the UNIX vi editor to customize configuration files.

Competency 2.1 – the student will learn what an editor is and which editors are supported by UNIX.

Competency 2.2 – the student will learn the text input and command modes of vi.

Competency 2.3 – the student will create and change files using vi – making changes such as inserting, moving, deleting text.

Outcome 3 – Upon successful completion of the course, the student will be able to discuss the file structure of the UNIX system.

Competency 3.1 – the student will understand files, directories, and partitions.

Competency 3.2 – the student will explore the root (/) file system.

Competency 3.3 – the student will understand paths and pathnames.

Competency 3.4 – the student will be able to set and modify file permissions and ownership.

Outcome 4 – Upon successful completion of the course, the student will be able to explore kernels and shells and their role in the UNIX system.

Competency 4.1 – the student will explore the standard and non-standard UNIX shells.

Competency 4.2 – the student will learn about logic and programming within shells to form simple scripts.

Competency 4.3 – the student will explore the bash shell (bash) and learn the shell's style.

Outcome 5 – Upon successful completion of the course, the student will use graphical systems such as Xwindow.

Competency 5.1 – the student will learn a brief history of Xwindow.

Competency 5.2 – the student will learn to install, configure, and upgrade Xwindow.

Competency 5.3 – the student will learn to use desktop managers in Xwindow.

Outcome 6 – Upon successful completion of the course, the student will be able to install the UNIX/Linux operating system.

Competency 6.1 – the student will gather information about their hardware and network to prepare for the installation.

Competency 6.2 – the student will prepare the hard disk.

Competency 6.3 – the student will install a PC-based UNIX operating system (e.g. SUSE Linux)

Competency 6.4 – the student will be able to troubleshoot a new UNIX/Linux installation.

Outcome 7 – Upon successful completion of the course, the student will be able to perform routine System Administrator duties that are necessary in a UNIX environment.

Competency 7.1 – the student will learn to set up user accounts.

Competency 7.2 – the student will learn to check log files

Competency 7.3 – the student will learn to setup and maintain printers.

Competency 7.4 – the student will learn to backup the system.

Competency 7.5 – the student will learn to manage network daemons or services.

COURSE TOPICS AND CONTENT REQUIREMENTS:

Introducing Unix / Linux

Planning Your System

Installing Linux

Running a Linux System

Using Graphical Systems (the Desktop) with Linux

Locate and Use Help Resources in the Linux System

The Shell and Use vi to Manage Text Files

Use the YaST Management Utility

Manage Directories and Files in Linux
The Command-Line Interface to Administer the System
Manage the Network Configuration
Processes, Jobs and Runlevels
Mange Network Services: DNS, and File and Print Services
Manage Security
Hardware Basics

INSTRUCTIONAL METHODS:

Classroom lecture and demonstration
Student hands-on lab exercises

INSTRUCTIONAL MATERIALS:

Getting Started with Linux: Novell's Guide to CompTIA's Linux+ (Course 3060)

by Jason Eckert

Lab D109A or similar stand alone network environment

STUDENT REQUIREMENTS AND METHODS OF EVALUATION:

Students will complete all assigned hands-on activities.
Students will complete and turn in all application assignments.
Students will complete quizzes on the topics discussed.
Students will successfully complete written and hands-on exams.

90 – 100 = A

80 – 89 = B

70 – 79 = C

60 – 69 = D

OTHER REFERENCES

Course Competency/Assessment Methods Matrix

CSO 2200; UNIX Operating System		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							
Outcome 1 -- Upon successful completion of the course, the student will obtain a brief history and introduction of the UNIX operating system.							X	X																									
Outcome 2 – Upon successful completion of the course, the student will be able to use the UNIX vi editor to customize configuration files.				X				X						X														X					X
Outcome 3 – Upon successful completion of the course, the student will be able to discuss the file structure of the UNIX system.				X			X	X						X													X					X	
Outcome 4 – Upon successful completion of the course, the student will be able to explore kernels and shells and their role in the UNIX system.	X		X					X						X													X					X	

CSO 2200; UNIX Operating System		Assessment Options																																		
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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 5 – Upon successful completion of the course, the student will use graphical systems such as Xwindow.				X									X																						
	Outcome 6 – Upon successful completion of the course, the student will be able to install the UNIX/Linux operating system.			X	X																															
	Outcome 7 – Upon successful completion of the course, the student will be able to perform routine System Administrator duties that are necessary in a UNIX environment.			X	X																															