

**Cosumnes River College**  
CISN 300  
**Network Systems Administration - Linux**  
A Hybrid-Online Course  
Fall 2008

**Instructor:** Buddy Spisak

**Office Hours:** Tues. 6:30-7:40 p.m. (Aug. 26th to Dec. 9th)

**Office Location:** BS-143

**Voice Mail:** (916) 568-3100 ext. 14162 or (800) 486-8156 ext. 14162

**E-mail:** [spisakj@crc.losrios.edu](mailto:spisakj@crc.losrios.edu) The turnaround time for responding to most E-mails is about one to two days. Be sure to include your name and the course number in each E-mail so I can identify who you are and what the E-mail is about.

**Course Web page:** <http://d2l.losrios.edu/>

**Instructor Web page:** <http://wserver.crc.losrios.edu/~spisakj/>

**Microsoft Messenger:** You can also add me to your contact list for Windows Messenger. You can use my E-mail address to find me.

**Prerequisites:** None

**Advisory:** CISC 302, CISC 308, or CISC 310

**Lecture:** Online

**Lab:** W 6:00 to 9:10 p.m.

**Accepted for Credit:** CSU

**Class Credits:** 3 units

**Required Textbooks:**

**Title:** SUSE Linux Enterprise Server Administration

**Author:** Jason Eckert

**Publishing Info:** Thompson Course Technology, 2007

**ISBN10:** 1-4188-3731-8

**ISBN13:** 978-1-4188-3731-0

**Optional Materials:**

3-1/2" floppies, a flash drive, or RW-DVD's to store your work for the class

**Course Description:**

This course covers the administration of a server in a client/server network. Topics include designing a basic network, installing and configuring a network operating system, managing network security with user and group accounts, creating directory structures and network shares, setting up and managing network printers, backing up servers, monitoring and troubleshooting network resources, and establishing policies and procedures for network operations.

**Student Learning Outcomes and Course Objectives:**

As a result of completing this course, you will be able to:

- SLO #01: CRITIQUE THE FUNDAMENTALS OF A SERVER
  - Differentiate between peer-to-peer and client-server networking models
  - Investigate server functions and benefits
  - Identify characteristics that distinguish server hardware from client hardware
- SLO #02: CALCULATE SERVER PLACEMENT IN A NETWORK

- Determine the most appropriate server solution for a given business purpose or situation
  - Rank user demands on a server
  - Optimize server placement
- SLO #03: EVALUATE SERVER HARDWARE
  - Evaluate motherboard buses
  - Inspect common server processors, and common types of memory
  - Contrast how clock frequency affects performance
  - Compare physical and logical drives and describe their functionality
  - Identify characteristics of the IDE interface and configure IDE cabling and connectors
- SLO #04: APPRAISE SERVER UPGRADES
  - Calculate, adequately test and pilot the server upgrade
  - Verify the availability of system resources
- SLO #05: ASSESS COMMON NETWORKING PROTOCOLS, TOPOLOGIES, MEDIA AND EQUIPMENT
  - Examine bus, ring, and star network topologies
  - Describe Token Ring and Ethernet media access methods
  - Uncover the purpose behind bridges, switches, hubs, and routers
  - Discuss NetBEUI, IPX/SPX, and TCP/IP protocols
- SLO #06: CONTRAST DIFFERENT SERVER SOFTWARE
  - Identify network operating system characteristics and versions
  - Examine network operating system hardware requirements
  - Judge different network operating system installations and upgrades techniques
  - Configure, install, and maintain a Linux, and/or Windows network operating system
- SLO #07: DIFFERENTIATE THE USE OF COMMON NETWORK SERVICES AND APPLICATIONS
  - Identify and understand major network operating system services
  - Discuss the different ways that servers run network applications
  - Describe the function of monitoring agents
  - Specify the functions of the server as a network device

### Methods of Measuring Student Learning Outcomes:

- You will demonstrate knowledge of network and Internet security applications and standards through class discussions and achievement on quizzes and final examination.
- You will demonstrate competence in the coursework by completing lab work and participating in the discussion board during the semester.

### Student Obligations:

- **Attendance:** Since this course is online, only attendance at the On-Campus Orientation on Aug. 27, 2008 and the Final on Oct. 15, 2008 is necessary. There will be weekly lab time on campus, and it is up to you to complete the lab assignments during the lab time or at home.
- **Late Work:** Unless noted all assignments are due on Tuesday by midnight each week. Late work will be accepted ONLY if you have contacted me prior to the due date either by E-mail or voice mail. In general, late work is due the next week, and no late assignments may be turned in after one week from the original due date regardless of the reason. For every day an assignment is late, you will lose 10% of its grade.
- **Due Dates:** Unless noted all assignments will be submitted in Desire2Learn under the "Weekly Assignments" link. If, for any reason, you cannot access Desire2Learn or are unable to submit the assignment on time, please E-mail it to me instead so that you are not penalized for being late. Quizzes and the discussion board items cannot be taken past their due date. If you miss a quiz and you want to make up points you can take advantage of the extra credit assignments posted in Desire2Learn. Everyone is welcome to work on the extra credit assignments. Typically, they are five to ten points each, depending on the difficulty of the assignment.
- **Labs:** There will be six labs credited for homework for the class. The due dates are located in the **SCHEDULE** portion of this handout. We will spend a lot of time working on lab activities. Each lab has a set of review questions that you will need to answer in Desire2Learn in order to

receive points for that assignment. If you do the lab work at the college during the regularly scheduled lab time, you will not have to submit your results in Desire2Learn. Instead, I will visually confirm your work and assign your points in class.

- **Discussions:** I want everyone to take a pro-active approach to learning this material. This includes using the discussion board to ask questions and also answer other students' questions. I will also post questions each week that you can answer to further your understanding of the material. I expect two postings each week unless otherwise noted.
- **Final Exam:** The final exam will consist of two parts. One part of the exam will be a hands-on practical demonstration of assigned tasks and the other part will be an exam taken in Desire2Learn.
- **Plagiarism Policy:** It is inappropriate, and a violation of academic policy, to copy information from any source (including, but not limited to, textbooks, magazine articles, newspaper articles and Internet articles) without giving proper credit to the author by using standard quotation procedures such as in-line quotes, footnotes, endnotes, etc. Quotes may not exceed 25% of the assignment's total length. You will receive no credit (0 points) for any assignment that copies any material from any other source without giving proper credit to the author(s). Repeat offenders of this policy are subject to academic discipline as outlined in the policies published by the college.
- **Cheating:** Students who cheat will receive a failing grade for the course. (See CRC 2008-09 College Catalog, p. 37.)
- **E-mail:** Every student will be required to have an E-mail account.
- **E-mail etiquette:** I will not tolerate rude and demeaning comments or e-mails to anyone in this class. Please keep your comments and e-mails topic-related. If I determine that a comment or e-mail to anyone else in the class is rude or demeaning, I will warn you once. If your behavior continues to be unacceptable, I will refer you to the administration of the college for disciplinary action.
- **Personal belongings:** No food or drinks are allowed in the classroom. All cell phones, beepers, pagers, etc. should be turned off or set to vibrate.
- **Disabilities:** If you have a documented disability and wish to discuss academic accommodations, please contact me after class or contact the Office of Disabled Student Programs and Services at 691-7275 as soon as possible.
- **Campus Police:** You can call 691-7777 to request a safety escort.
- **Desire2Learn:** This class utilizes a product called "Desire2Learn." It is highly recommended that you check the website frequently for scheduling updates and homework assignments. Most of the homework assignments and quizzes will be done on Desire2Learn.
- **Online Course Responsibilities:** This course requires significant self-motivation. You must not get behind. Labs and weekly assignments can take up to eight hours to finish. Please don't try to finish them in one day. Not all activities are created equal. Some may take a bit longer than others. You would normally spend 4 hours per week in class for this course: total of 54 hours. Allow yourself at least 8 hours per week to complete the activities online, including the time spent writing for the postings to the class discussion board. You should plan additional time to read the textbook and study for the quizzes. Some people believe this is a much easier way to study this subject than an on-campus framework because they love to read and avoid the parking problems. Others feel very intimidated at first. Be patient as you work your way through the activities.

### Grading:

Course Topic	Points	Total	Approximate % the of Grade
Labs (6)	50	300	40
Orientation Quiz (1)	10	10	1
Quizzes (4)	30	120	16
Discussions (6)	20	120	16
Final Exam (1)	200	200	27

**Point System:**

There are 750 total assigned points.

**Grade Ranges:**

A= 675-750, B=600-674, C=525-599, D=450-524, F=0-449

**Schedule:** It is tentative and can change during the course of the term. All changes will be located under the "News" section in Desire2Learn for the course.

	<b>Day:</b>		<b>Lecture/Lab Schedule:</b>	<b>Assignment Due:</b>	<b>Due Date (By Midnight):</b>
Week 1	Wed.	8/27	Orientation and Introductions	Orientation Discussion Orientation Quiz	Tues., Sept. 2
			Ch 1: Introduction to Managing the SUSE Linux Enterprise Server	View the Online Orientation	
			Lab #1:		
Week 2	Wed.	9/3	Ch 2: Manage User Access and Security	Discussion #1(Ch 1-2)	Tues., Sept. 9
			Ch 3: Manage the Linux File System	Lab #1	
			Lab #2		
Week 3	Wed.	9/10	Ch 4: Manage Software for SUSE Linux Enterprise Server	Discussion #2(Ch 3-4) Quiz#1(Ch 1-3)	Tues., Sept. 16
			Ch 5: Manage System Initialization	Lab #2	
			Lab #3:		
Week 4	Wed.	9/17	Ch6: Manage Linux Process and Services	Discussion #3(Ch 5-6)	Tues., Sept. 23
			Ch7: Connect the SUSE Linux Enterprise Server to the Network	Quiz#2(Ch 4-6)	
			Lab #4:	Lab #3	
Week 5	Wed.	9/24	Ch 8: Enable Infrastructure Services	Discussion #4(Ch 7-8)	Tues., Sept. 30
			Ch 9: Enable Internet Services	Lab #4	
			Lab #5:		
Week 6	Wed.	10/1	Ch 10: Manage Remote Access	Discussion #5(Ch 9-10)	Tues., Oct. 7
			Ch 11: LiveFire Exercise	Quiz#3(Ch7-9)	
			Lab #6:	Lab #5	
Week 7	Wed.	10/8	Review	Discussion #6(Ch11) Quiz#4(Ch10-11)	Wed., Oct. 15
				Lab #6	
Week 8	Wed.	10/15	Final Exam		All work needs to be turned in.