CISN 308 Syllabus
(Formerly CIS 84)
Implementing Windows Network Infrastructure
(or Internetworking with TCP/IP)

Instructor: Buddy Spisak
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Class Credits: 3 units   **Prerequisite**: CISN 302 (Formerly CIS81)
Lecture Hours: Monday and Wednesday 6 to 9:30pm   **Advisory**: none
Accepted for Credit: CSU

Required Text:

- ALS: Microsoft Windows 2000 Network Infrastructure Administration, 2nd ed. textbook and
- ALS: Microsoft Windows 2000 Network Infrastructure Administration, 2nd ed. Lab Manual (Microsoft Press, 2003). ISBN: 0-07-285066-3.

Course Description: This course will enable students to install, configure, manage and support a network infrastructure that uses the Microsoft Windows Server products. The course focuses heavily on TCP/IP and related services, including DHCP Server service, DNS Server service, WINS, network security protocols, Public Key Infrastructure (PKI), Internet Protocol Security (IPSec), remote access. The course also enables the student to configure Windows as a network router, configure Internet access for a network, configure a Web server, and manage a Windows deployment using Remote Installation Services (RIS). The student will also learn to enable network connectivity between NetWare, Macintosh, and UNIX networks.

Course Objectives:
Upon successful completion of this course, you will be able to:
Review Network Architecture, Topology, Interdependencies and Constraints:
- Knowledge of key sources of information with respect to architecture and topology
- Knowledge of intranets and extranets and the situations in which each would be used
- Knowledge of connectivity issues between operating systems including NetWare, Systems Network Architecture (SNA), and UNIX
- Knowledge of Windows networking and operating environments
- Knowledge of network architecture, topology, hardware and software
- Ability to analyze information and develop theories about interdependencies in a Windows networking infrastructure

Prepare Overall Design and Integration Plan for implementing a Networking Services Infrastructure:
- Knowledge of networking and operating environments
- Ability to analyze situations/information and formulate a plan of action that is in line with business and financial constraints
- Ability to understand and implement the automation of Internet Protocol (IP) address assignment using Dynamic Host Configuration Protocol (DHCP)
- Ability to understand and implement name resolution using Domain Name System (DNS)

- Ability to understand and implement name resolution by using Windows Internet Naming Service
- Ability to understand and configure network security by using Public Key Infrastructure
- Ability to configure remote access to a network
- Ability to install and configure a Web server using Microsoft Internet Information Services (IIS)
- Ability to connect a Windows client to other operating systems including NetWare, Systems Network Architecture (SNA), and UNIX

Perform Workstation and Server Deployment:
- Knowledge of Remote Installation Services (RIS)
- Ability to install and configure RIS
- Ability to create an RIPrep image
- Ability to deploy images by using RIS
- Ability to compare CD-based images and RIPrep images identifying solutions to RIS problems

Perform Workstation Configuration and Software Loading:
- Knowledge of software loading and configuration procedures
- Knowledge of compatibility issues and resolution procedures
- Ability to understand components of a Windows Network infrastructure and relate user needs to configuration
- Ability to analyze operational problems
- Ability to use Group Policy to deploy and manage software in a Windows environment
- Ability to configure a DHCP client
- Ability to configure a DNS client
- Ability to configure a WINS client
- Ability to configure a remote access client
- Ability to configure a client for access to the Internet

Assist in Development of Deployment Plan and Methods:
- Knowledge of installation processes and procedures including RIS
- Knowledge of enterprise-wide deployment practices and standards
- Ability to resolve conflicts in a timely manner
- Ability to follow company procedures and support organizational processes

Develop and Implement Security Procedures:
- Knowledge of basic security concepts including system, end-user and operational security
- Ability to assess needs for security
- Ability to assess and modify policies/procedures
- Ability to understand and implement network security by using Public Key infrastructure
- Ability to understand and implement network security by using IP Security (IPSec)

Managing and Maintaining a Windows Network:
- Knowledge of Windows administrative strategies
- Ability to use troubleshooting tools such as Network Monitor
- Ability to understand and implement Simple Network Management Protocol (SNMP)
- Ability to use Microsoft Terminal Services for remote administration
- Ability to resolve network connectivity problems
- Ability to resolve TCP/IP problems
- Ability to resolve name resolution problems
- Ability to troubleshoot routing problems

Student Obligations:

    Attendance:

      1) If you need to miss a class, you are responsible for the material covered.
- Please realize that I cannot possibly review the entire content of a three hours' lecture with you in five minutes.
- You should find a "buddy" who is willing to share notes with you if you have to miss lecture.

      2) I do not penalize you directly for missing a class, but sometimes there are in-class activities (worth points) that cannot be made-up.

    Homework:

      1) The homework for this class is PASS/FAIL.
- Students are expected and required to do their own work.
- This rule does not mean that you cannot discuss assignments and problems with fellow students. In fact, working together is encouraged. However, once you have worked together, and then do your own work.
- Copying all or parts of homework assignments is expressly forbidden. Violation of this rule will result in a zero for ALL parties involved. Homework will not be accepted late unless you have contacted the Instructor prior to its due date.

      2) YOU are responsible for making sure that the Instructor received your assignment.
- You can accomplish this task by going to, "Student Tools" then "Check grade" and looking for the assignment.
- <u>NO late assignments may be turned in after one week from their original due date regardless of the reason.</u>

    Labs:

      1) The labs for this class are PASS/FAIL.
- Basically you work on the lab, answer the questions in Blackboard and receive 10 points regardless if your answers are correct or not.
- Copying all or parts of lab assignments is expressly forbidden. Violation of this rule will result in a zero for ALL parties involved. Labs will not be accepted late unless you have contacted the Instructor prior to its due date.

      3) YOU are responsible for making sure that the Instructor received your assignment.
- You can accomplish this task by going to, "Student Tools" then "Check grade" and looking for the assignment.
- <u>NO late assignments may be turned in after one week from their original due date regardless of the reason.</u>

    Late Work:

      1) Late work will **ONLY** be accepted if you have contacted me prior to class either by email or voice mail.

      2) In general, late work is due the next class session and no late assignments may be turned in after one week from their original due date regardless of the reason.

      3) <u>For every day an assignment is late it will loose 10% of its grade.</u>

      4) The projects cannot be turned in late.

    Exams:

      1) There will be two exams and one final.
- The dates for the tests are located in the SCHEDULE portion of this handout.
- If you cannot make any test you MUST contact the Instructor PRIOR to it otherwise you will receive a zero for the grade.

      1) The exams are each worth 100 points. You can use your handwritten notes.

      2) The Final is a hands-on skill-based activity.
- You are asked to repeat parts of different labs.
- You are allowed to use two pieces of paper (8 by 10) for notes.

Projects:
1) Individual
   - You write a paper about one to two network services associated with Windows 2000 Server or
   - You can design a Windows 2000 network infrastructure.
   - Further details to come later.
   - It is worth 100 points.
2) Group
   - Your group has been assigned the task of building the network infrastructure for a Windows 2000 network. It is your job to install and configure the services that will be required for your network to function. The days of just administering the network operating system are behind you.
   - Further details to come later.
   - It is worth 100 points.

Discussion Board:
1) Include comments and/or questions about this week's reading assignment(s) and reply to at least one other student's posting.
2) They are worth 10 points each.
3) THEY ARE DUE SUNDAY (by midnight) EACH WEEK.

Exam 70-216:
1) The Microsoft MCSE exam for Network Infrastructure related to this class.
   - You can take this test during the course timeline instead of the final.
   - You MUST pass this test one week prior to the final.
   - You MUST provide proof of the exam and the Instructor reserves the right to deny any MCSE exam.

Definition of Plagiarism:
Plagiarism is defined as representing the words, ideas, or work of another as one's own in any academic exercise. Plagiarism consists in taking the words or specific substance of another work and either copying or paraphrasing without giving credit to the source. Plagiarism is applicable to written, oral and artistic work. The following examples are only some of the many forms plagiarism may take:
1) Word-for-word copying of work written by someone else.
2) Failure to give proper credit for ideas, statements of facts, or conclusions derived by another.
3) Failure to use quotation marks when quoting directly from another, whether a paragraph, sentence, or phrase.
4) Close and extended paraphrasing of another work without acknowledging the source.

Plagiarism Policy:
1) 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.
2) Quotes may not exceed 25% of the assignment's total length.
3) 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).
4) Repeat offenders of this policy are subject to academic discipline as outlined in the policies published by the college.

Definition of Cheating:
Cheating is the act of obtaining or attempting to obtain credit for academic work through the use of dishonest, deceptive, or fraudulent means. The following are only some examples of the many forms cheating may take:

5) Copying another's work on a test, paper, or project.
6) Using unauthorized materials in an exam or collaborating on work to be turned in for credit where the instructor disallows such collaboration.
7) Taking an exam for another student, purposely allowing another student to copy during a test, or providing coursework for another student to turn in as his own effort.
8) Submitting the same work in multiple classes for credit without permission from the instructor.

Cheating Policy:
1) Students who cheat will receive a failing grade for the course (see CRC Regulation # 2441).

Dropping:
1) Students are responsible for dropping the course.
2) However, after missing two days of class the Instructor can drop the student.

Email:
1) Every student will be required to have an email account.
2) If you do not have one you can get one.
   - Talk to the Instructor for assistance in getting an email account.

Email etiquette:
1) 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.
2) 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:
1) No food or drinks are allowed in the classroom. All cell phones, beepers, pagers, etc. should be turned off or set on vibrates.

Disabilities
1) 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.

Using Los Rios Online (Blackboard)

1. How to log in:
   a. You will not be able to participate in the online portion of your class using Los Rios Online until you have enrolled in your course through your college's registration system.
   b. Students registered as of the first day of the term should already have Los Rios Online accounts and be linked to the classes in which they are enrolled.
2. To log on to your Blackboard account, open your web browser and go to the following URL: http://blackboard.losrios.edu
3. Your User Name is the letter w followed by your Student ID# or Employee ID#. Example: w0123456
4. Your default password is your birthday in the format: MMDDYYYY Example: Birthday is June 12, 1974 then password = 06121974

Evaluation:
It is tentative and can change during the course of the semester. All changes will be located under, "Announcements" on the course website.

Assignments	#		Points		Total		% of Grade
Discussion Board	8		10		80		8%
Homework	14		20		280		28%
Lab	14		10		140		14%
Group Project	1		100		100		10%
Individual Project	1		100		100		10%
Exams	2		100		200		20%
Final	1		100		100		10%
Total points possible					**1000**		
A = 1000-900, B=899-800, C=799-700, D=699-600, F=599-0							

Schedule:
It is tentative and can change during the course of the semester. All changes will be located under, "Announcements" on the course website.

	Day:		Schedule:	Assignments DUE DATES:
Week 10	Monday	20-Oct	Introduction, Chapter 1	
	Wednesday	22-Oct	Chapter 2, Labs 1 and 2	
Week 11	Monday	27-Oct	Chapter 3, Lab 3	
	Wednesday	29-Oct	Chapter 4, Lab 4	
Week 12	Monday	3-Nov	Chapter 5, Lab 5	
	Wednesday	5-Nov	Chapter 6, Lab 6	
Week 13	Monday	10-Nov	**Holiday--no class**	
	Wednesday	12-Nov	**Exam #1** (chapters 1 to 6)	**HW #1 to 6, Labs #1 to 6**
Week 14	Monday	17-Nov	Chapters 7 & 8, Lab 7	
	Wednesday	19-Nov	Chapter 9, Labs 8 & 9	
Week 15	Monday	24-Nov	Chapter 10, Lab 10	**Your Project**
	Wednesday	26-Nov	Chapter 11, Lab 11	
Week 16	Monday	1-Dec	Chapter 12, Lab 12	
	Wednesday	3-Dec	Chapter 13, Lab 13	
Week 17	Monday	8-Dec	Chapter 14, Lab 14	
	Wednesday	10-Dec	**Exam #2** (chapters 7 to 14)	**HW #7 to 14, Labs #7 to 14**
Week 18	Monday	15-Dec	***Group Presentations***	
	Wednesday	17-Dec	***Final Exam (hands-on)***	**Note Time: 6 to 7:50pm**

Do not forget that two Discussion Board posting are due each week (except week 18) on Sunday by midnight.