University of Wisconsin-Stevens Point
College of Letters and Science
Department of Computing and New Media Technologies
Stevens Point, WI 54481-3897
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CIS 250 – Network Management I (4 credits)

4:00 p.m. – 5:50 p.m. MW Location: SCI B348/D226

Instructor: Daehee (Danny) Kim, PhD
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Phone: 715-346-2078
Office Hours: 2:00 – 4:00 p.m. MW
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Course Description

Examine core concepts in designing and managing a network infrastructure, e.g. designing and planning out a mock network, administering and configuring network equipment, and troubleshooting. Practice hands-on labs with network equipment and/or simulation tools.

Prerequisites

CIS150, Data Communication and Networks

Objectives

- Strengthen network knowledge that was gained from CIS150 through practical hands-on labs.
- Understand TCP/IP, OSI networking models, Ethernet LANs, WANs, IPV4 addressing and Routing, and TCP/IP Transport and applications more in depth.
- Learn how to build Ethernet LANs and Virtual LANs with LAN switches.
- Obtains the ability to design IPv4 addressing and subnetting for new and existing networks.
- Study how to implement, configure, operate Cisco routers using OSPFv2
- Learn subnet design, variable-length subnet masks (VLSM), router summarization, IPv4 access control list, network address translation (NAT).
- Figure out how data are transferred through network between hosts by investigating network configuration and looking into data packet with packet analyzer like WireShark.
- Encourage students to obtain a network fundamental certificate, CCENT (Cisco Certified Entry Networking Technician). The exam to get the certificate is called ICND1 (Interconnecting Cisco Networking Devices Part 1).
    - Testing Center: Delzell Hall, third floor.
    - URL for booking exam: http://www.pearsonvue.com/cisco/

Required Text and Material Purchase

Wendell Odom (2013), Cisco CCENT/CCNA ICND1 100-101 Official Cert Guide, ISBN: 978-1-58714-385-4

Grading Policy:

Assessment:

- Midterm 1 — 20% (10/4 Wednesday, in class)*
- Midterm 2 — 20% (11/8 Wednesday, in class)*
- Final Exam — 30% (12/22 Friday, 12:30 pm ~ 2:30 pm, Comprehensive Exam)
- 5 Assignments — 25% (5% per assignment)
- Attendance — 5% (sign on attendance sheet every class)
- ICND1 Certificate — 5% (extra credit): to encourage students to get a Cisco certificate.

* Dates can be changed based on class progress

Grading scale:
Final grades will be determined according to the following scale:

		A	100 – 92%	A-	91 – 90%
B+	89 – 87%	B	86 – 83%	B-	82 – 80%
C+	79 – 77%	C	76 – 73%	C-	72 – 70%
D+	69 – 66%	D	65 – 60%	F	< 60%

Assignments

Assignments will be announced in class and posted on D2L. If you miss class, it is your responsibility to check D2L for any homework assignments and supporting material which may have been given out during class. I recommend that you start working on assignments as soon as possible after they have been announced. Starting early greatly increases your odds of completing the assignment to your satisfaction. Please call, email or see the instructor as soon as possible, and **before the due date**, with any questions or concerns about an assignment.

Due Dates & Late Assignments

Unless otherwise noted by the instructor, assignments are due no later than the **midnight** on the due date. For the late assignments up to one week, the following reduction of the given points will be deducted.

- After due date ~ 1 week: 30% deduction of given points
- After 1 week ~ 2 weeks: 60% deduction of given points
- After 2 weeks: no points will be given.

Assignments may only be made up if the absence was due to documented illness, approved university activity or family emergency. If you miss class or an assignment due to an approved university activity, illness or family emergency on the day an assignment is due, it is your responsibility to contact the instructor **before the start of class that day** in order to make alternative arrangements.

Attendance

This class assumes perfect attendance. In the event you need to miss a class, please contact the instructor before absence, and consult with classmates regarding material you may have missed. Absence without excuse to the instructor will have an effect on your grade.

Academic Standards

The University of Wisconsin – Stevens Point is an academic community of individuals committed to the pursuit of learning, the acquisition of knowledge, and the education of all who seek it. This course expects that all work turned in for a grade is your own, or that of your group. A description of your rights and responsibilities as a member of the UWSP community can be found at:
http://www.uwsp.edu/dos/Pages/Information%20for%20Students.aspx

Student Academic Standards and Disciplinary Procedures (UWS/UWSP Chapter 14) is available at
http://www.uwsp.edu/dos/Documents/Community%20Rights%20and%20/Responsibilities.pdf#page=8

Academic Dishonesty Policy

Students may discuss assignments with each other and may seek help from the instructor. However, since assignment scores count as a part of the final grade, students must limit the amount of outside help they receive. Students must not copy any part of another person's work or break an assignment into a team project (unless directed to do so by the instructor). If there is ANY doubt in your mind about the amount of help given/received you should immediately consult with your instructor BEFORE submitting the assignment.

Any student who submits an assignment or exam which is in whole or in part the work of another person and any student (whether enrolled in the course or not) who so assists another student will be prosecuted under Chapter UWSP 14 of the Rules of the Board of Regents of the University of Wisconsin System, Wisconsin Administrative

Code. Depending upon the severity of the infraction, the consequences of such an act range from a verbal reprimand to an "F" in the course to expulsion from the University.

Cell Phone, IM and Recording Devices

Please turn off cell phones before entering the classroom. Cell phones may not be used in the classroom without prior permission of the instructor. Instant messaging, including *Facebook and social media sites*, should also be turned off, unless you are communicating with a group member working remotely. If you would like to record (video or audio) any aspect of this course, please seek prior permission from the instructor.

Emergency Preparedness

In the event of a medical emergency, call 911 or use red emergency phone located outside of the Public Science Hall Lab (B238). Offer assistance if trained and willing to do so. Guide emergency responders to victim. In the event of a tornado warning, proceed to the lowest level interior room without window exposure at SCIENCE A224. In the event of a fire alarm, evacuate the building in a calm manner. Meet near the grassy area near Lot X. Notify instructor or emergency command personnel of any missing individuals.

Active Shooter – Run/Escape, Hide, Fight. If trapped hide, lock doors, turn off lights, spread out and remain quiet. Follow instructions of emergency responders. See UW-Stevens Point Emergency Management Plan at www.uwsp.edu/rmgt for details on all emergency response at UW-Stevens Point.

Communication by email

I do a lot of communication by email. When you email me, please include "CIS250:" in the beginning of subject. It will help me differentiate your email for this course with other emails.

Course Schedule

- See attached "CIS250_schedule.pdf"

CIS250 – Network Management: TENTATIVE COURSE SCHEDULE

*** Dates and topics are subject to change ***

Week	Approx. Dates	Topics	Homework	Exam	Chapters
1	9/4	Labor day (no class)			
	9/6	Syllabus, Introduce(class, person), Survey,			
2	9/11	TCP/IP and OSI Networking Models Practice: Deploy Linux Virtual Machine			Ch1
	9/13	Fundamentals of Ethernet LANs	HW1		Ch2
3	9/18	Fundamentals of WANs Practice: GNS3 (Deploy LAN and WAN)			Ch3
	9/20	Fundamentals of IPv4 Addressing of Routing			Ch4
4	9/25	TCP/IP Transport and Applications			Ch5
	9/27	Building Ethernet LANs with Switches	HW1 (due) HW2		Ch6
5	10/2	Midterm 1 – review			
	10/4	Midterm 1		Midterm 1	
6	10/9	Perspectives on IPv4 Subnetting			Ch11
	10/11	Practice: Installing and Operating Cisco LAN switches, Configuring Ethernet Switching			Ch7,8
7	10/16	Implementing Ethernet Virtual LANs Practice: make network with two switches			Ch9
	10/18	Practice: separate network to subnets. Separate network not based on location.	HW2 (due) HW3		Ch9
8	10/23	Analyzing Classful IPv4 Networks, Analyzing Subnet Masks			Ch12,13
	10/25	Analyzing Existing Subnets, Practice: Troubleshooting Ethernet LANs			Ch14 Ch10
9	10/30	Operating Cisco Routers Practice: Deploy an enterprise network			Ch15
	11/1	Configuring IPv4 Addresses and Routes Practice: Subnetting in enterprise network	HW3 (due) HW4		Ch16
10	11/6	Midterm 2 – review			
	11/8	Midterm 2		Midterm 2	
11	11/13	Learning IPv4 Routes with OSPFv2 Configuring and Verifying Host Connectivity			Ch17,18
	11/15	Practice: (review) deploy an enterprise network, Subnetting in WAN network			Ch15,16

12	11/20	Practice: OSPF configuration	HW4 (due)		Ch17
	11/22	Thanksgiving break (no class)			
13	11/27	Subnet Design			Ch19
	11/29	VLSM, Route Summarization	HW5		Ch20,21
14	12/4	IPv4 Access Control List			Ch22,23
	12/6	Network Address Translation			Ch24
15	12/11	IPv6			Ch25~29
	12/13	Final Review	HW5 (due)		
16	12/22	Final (Friday, 12:30 pm ~ 2:30 pm), Comprehensive		Final	