TDC 413 - Introduction to LAN & WAN

Winter 2019

Instructor	Andy Sajous	**Office Hours**	Wednesday 4:15PM – 5:45PM at Lewis 1208
Course Website	http://d2l.depaul.edu	**E-mail**	psajous@depaul.edu (I will reply within 24 hours)
Meeting time	Wednesday 5:45PM - 9:00PM	**Location**	Lewis 1208 at Loop Campus

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Description:
This course covers the principles of local area network (LAN) technologies including structured cabling, protocols, network devices, and network operating systems. Students will learn the theories and practices of designing, provisioning, and deploying LAN in an enterprise environment. Assigned lab exercises involving LAN configuration and troubleshooting will help reinforce various concepts.

Learning Objectives:
- Understand Ethernet technologies, such as switching, VLANs, Etherchannel and Spanning Tree Protocol (STP).
- Understand IP auxiliary protocols such as DNS, DHCP, ARP
- Understand IPv4 address management and subnetting
- Understand IPv4 packet forwarding and basic routing
- Understand IPv6 addressing and concepts
- Understand principles and implementation of RIP and OSPF routing protocols
- Configure and test switch and router operations within Cisco IOS

Optional Text:
CCNA Routing and Switching Complete Study Guide: Exam 100-105, Exam 200-105, Exam 200-125
ISBN 13: 9781119288282 by Todd Lammle, Sybex, 2016.

Cisco provides many useful online learning materials as a part of its Cisco Network Academy (CNA). Since DePaul is a Cisco Networking Academy, you have access to these materials during this course. The CNA materials duplicate and expand the materials in the Lammle text book to provide you an alternate text book. You may choose to (a) read only the Lammle text and ignore the CNA materials (b) read only the CNA materials and ignore the Lammle text, or (c) use both. Either source covers all topics required for this course. It is up to you.

The login can be found below.

https://www.netacad.com/login/

Prerequisites:
None

Lab Assignments:
Hands on labs is a critical component of this course. Students have the option to complete this labs in person in the CDM Network and Security Lab (CDM 348) or using Cisco Packet Tracer (IOS Simulation Software). It is highly encouraged that students complete at least 1 or more labs in person at the CDM lab.

Cisco Packet Tracer software can be downloaded from Cisco Network Academy site.

Course Breakdown:
- 35% - 4 Homework assignments
- 30% - 3 Lab Exercises

- 15% - Midterm Exam
- 20% - Final Exam

Homework assignments, labs and exams must be completed individually. Class attendance is essential since lectures may cover topics outside the text.
Further details on each assignment will be distributed in class. Final grades will be calculated as follows: points earned divided by possible points in each category will be multiplied by the contribution percentages shown to yield a total course percentage score between 0% and 100%.

Late Assignment Policy:

Homework assignments will NOT be accepted late – Homework solutions are posted right after the due time of the homework and I cannot accept any submission after that. Homework assignments are due by 5:45PM on the due date.
Lab assignments received late will be penalized as follows: up to 1 day late is 15% penalty; between 1 day and 3 days late is 25% penalty; between 3 days and 6 days late is 40% penalty. No submissions will be accepted more than 6 days past the due date. Lab assignments are due by 11:59PM on the due date.
In-person Lab Incentive: For every lab completed in-person at lab CDM 348, an extra 5pts will be awarded. This will allow for students to earn up to 55 pts out of 50 pts per lab.

Grading Scale

A = 90% - 100%	A- = 88% - 90%	B+ = 86%-88%	B = 80% - 86%
B- = 78% - 80%	C+ = 76% - 78%	C = 70% - 76%	C- = 68% - 70%
D+ = 66% - 68%	D = 60% - 66%	F = 0% - 60%	

Course Schedule:

Date	Topic	Required Reading	Assignment
1/9	Network Fundamentals, Ethernet, Protocol Layers and Encapsulation	Ch 1, 2 and 3	
1/16	DHCP, DNS, Subnetting, VLSM	Ch 4 and 5	HW #1 out
1/23	IOS, Layer 2 Switching	Ch 6 and 10	**HW#1 due 5:45PM** Lab #1 out
1/30	VLANs	Ch 11	HW #2 out Lab #2 out
2/6	STP Overview, Etherchannel		**HW #2 due 5:45PM** **Lab #1 due 2/10 11:59PM**
2/13	Midterm Exam		
2/20	IP Routing, RIPv2	Ch 9	HW #3 out **Lab #2 due 2/24 11:59PM**
2/27	OSPF	Ch 18	**HW #3 due 5:45PM** Lab #3 out
3/6	IPv6	Ch 14	HW #4 out
3/13	Wrap-up and Review		**HW #4 due 5:45PM** **Lab #3 due 3/17 11:59PM**
3/20	Final Exam		

Course Policies:

Changes to Syllabus

This syllabus is subject to change as necessary during the quarter. If a change occurs, it will be thoroughly addressed during class, posted under Announcements in D2L and sent via email.

Online Course Evaluations
Evaluations are a way for students to provide valuable feedback regarding their instructor and the course. Detailed feedback will enable the instructor to continuously tailor teaching methods and course content to meet the learning goals of the course and the academic needs of the students. They are a requirement of the course and are key to continue to provide you with the highest quality of teaching. The evaluations are anonymous; the instructor and administration do not track who entered what responses. A program is used to check if the student completed the evaluations, but the evaluation is completely separate from the student's identity. Since 100% participation is our goal, students are sent periodic reminders over three weeks. Students do not receive reminders once they complete the evaluation. Students complete the evaluation online in CampusConnect.

Academic Integrity and Plagiarism
All quizzes and assignments must be completed individually. This course will be subject to the university's academic integrity policy. More information can be found at http://academicintegrity.depaul.edu/. If you have any questions be sure to consult with your professor.

Academic Policies
All students are required to manage their class schedules each term in accordance with the deadlines for enrolling and withdrawing as indicated in the University Academic Calendar. Information on enrollment, withdrawal, grading and incompletes can be found at: cdm.depaul.edu/enrollment.

Students with Disabilities
Students who feel they may need an accommodation based on the impact of a disability should contact the instructor privately to discuss their specific needs. All discussions will remain confidential.

To ensure that you receive the most appropriate accommodation based on your needs, contact the instructor as early as possible in the quarter (preferably within the first week of class), and make sure that you have contacted the Center for

Students with Disabilities (CSD) at: csd@depaul.edu.
Lewis Center 1420, 25 East Jackson Blvd.
Phone number: (312)362-8002
Fax: (312)362-6544
TTY: (773)325.7296

Incomplete Grades
An incomplete grade is a special, temporary grade that may be assigned by an instructor when unforeseeable circumstances prevent a student from completing course requirements by the end of the term and when otherwise the student had a record of satisfactory progress in the course. All incomplete requests must be approved by the instructor of the course and a CDM Associate Dean. Only exceptions cases will receive such approval. Information about the Incomplete Grades policy can be found at http://www.cdm.depaul.edu/Current%20Students/Pages/Grading-Policies.aspx

Proctored exams for Online Students
If you are an online learning student living in the Chicagoland area (within 30 miles of Chicago), you will need to come to one of DePaul's campuses to take an exam. Online learning students outside of the Chicagoland area are required to locate a proctor at a local library, college or university. You will need to take the exam within the window your instructor gives. Students should examine the course syllabus to find exam dates and the instructor's policy on make-up exams. Detailed information on proctored exams for online learning students can be found at http://www.cdm.depaul.edu/onlinelearning/Pages/Exams.aspx