

NET 2435 - Cisco TCP/IP Advanced LAN/WAN Switching and Routing

Weber State University - Network Management Technology

Fall 2020

Instructor: Andrew Drake
Classroom: Online
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Office Hours: Virtual office hours - T/R 11:00 - 2:00

Course Description:

This course is the second in a two-course series designed to cover the materials required to pass the examination for the Cisco Certified Network Associate (CCNA) certification. This course uses the Cisco NetAcad coursework **Enterprise Networking, Security, and Automation (ENSA)**. CCNA certification is not required for this course but it is an excellent goal.

Required Text

CCNA 200-301 Portable Command Guide Fifth Edition 5th Edition

- ISBN-10: 0135937825

Learning Outcomes:

- Configure single-area OSPFv2 in both point-to-point and multiaccess networks.
- Explain how to mitigate threats and enhance network security using access control lists and security best practices.
- Implement standard IPv4 ACLs to filter traffic and secure administrative access.
- Configure NAT services on the edge router to provide IPv4 address scalability.
- Explain techniques to provide address scalability and secure remote access for WANs.
- Explain how to optimize, monitor, and troubleshoot scalable network architectures.
- Explain how networking devices implement QoS.
- Implement protocols to manage the network.
- Explain how technologies such as virtualization, software defined networking, and automation affect evolving networks.

Teaching Methods:

The Cisco Networking Academy portal will be used for slides, interactive applets, virtualized lab work, and testing. The instructor will record videos with explanations of lab work, review of key concepts, and other helpful materials. Grades will be kept through the Netacad portal (Weber's Canvas will not be used for this course). Virtual labs are available for assignments, assessment, and self study.

Quizzes and Labs:

Chapter exams will be taken through netacad, only one attempt will be allowed for each exam. Lab work will be primarily completed with Cisco's packet tracer software. It can be downloaded for free when you login at netacad.com. There will be a comprehensive multiple choice exam and practical exam at the end of the semester. Learning through lab work is an excellent way to approach the course's learning objectives. The number of lab assignments and their weighting in your final grade will reflect that.

Grade Scale:

94% - 100 % = A 90% - 93% = A-
87% - 89% = B+ 83% - 86% = B 80% - 82% = B-
77% - 79% = C+ 73% - 76% = C 70% - 72% = C-
67% - 69% = D+ 63% - 66% = D 60% - 62% = D-

Assignments: 60% Chapter Exams: 15% Skill Exam: 10% Final Exam: 15%

Late Work:

The class will be set up on a Tuesday/Thursday schedule similar to a face to face class. There is a lot of material to cover and the instructor has paced the due dates to try and keep it as even as possible. Keeping the pace of the course is strongly encouraged. It is at the instructor's discretion to allow late work.

ADA:

Any student requiring accommodations or services due to a disability must contact Services for Students with Disabilities (SSD) in room 181 of the Student Services Center. SSD can also arrange to provide course materials (including the syllabus) in alternative formats if necessary.

Course Fees:

Course fees in NET 2435 are designed to cover the costs of equipment maintenance and replacement such as routers and servers, annual Cisco training fees, consumable materials, and supplies.

Academic Honesty:

Any attempt to gain an unfair advantage during exams, or submitting another person's work as your own, is considered cheating. NMT policy dictates that any verifiable evidence of student academic cheating, as defined and determined by the instructor, will result in: 1) an automatic failing grade for the class and 2) a report to the Dean of Students that will include the student's name and a description of the student's dishonest conduct. You can find more information about academic honesty in the Weber State Policies and Procedures Manual.

http://www.weber.edu/ppm/Policies/6-22_StudentCode.html

Campus Closure:

In the event of the campus being closed, please check your student email for instruction.