

# **NET 2415 - Cisco TCP/IP Routing Protocols and Router Configuration**

## **Weber State University - Network Management Technology**

### **Spring 2019**

Instructor: Andrew Drake  
Classroom: EH 318 - M/W 10:30 - 11:45  
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Office Hours: Mon: Ogden 13:30 - 16:00 , Tues: Davis 15:00 - 17:30

#### **Course Description:**

This course is the first in a two-course series designed to prepare students to pass the examinations for Cisco Certified Network Associate (CCNA) Routing and Switching. This course uses the Cisco NetAcad coursework **Introduction to Networks** and **Routing & Switching Essentials**.

#### **Required Text**

CCNA Routing and Switching Portable Command Guide (4th Edition)

- ISBN-10: 1587205882

#### **Learning Outcomes:**

- Examine human versus network communication and see the parallels between them
- Be introduced to the two major models used to plan and implement networks: OSI and TCP/IP
- Gain an understanding of the "layered" approach to networks
- Examine the OSI and TCP/IP layers in detail to understand their functions and services
- Become familiar with the various network devices and network addressing schemes
- Discover the types of media used to carry data across the network
- Configure and troubleshoot basic operations of a small switched network
- Configure and verify static routing and default routing
- Configure and troubleshoot basic operations of routers in a small routed network
- Configure and troubleshoot VLANs and inter-VLAN routing
- Configure, monitor, and troubleshoot ACLs for IPv4 and IPv6

#### **Teaching Methods:**

Class will be taught using a combination of lecture and labs to present and reinforce the material. The Cisco Networking Academy portal will be used for slides, interactive applets, virtualized lab work, and testing. Grades will also be kept through the Netacad portal. Hands on labs will be used for instruction and testing. Virtual labs are available for some assignments, review of hands on labs, and self study.

**Quizzes and Labs:**

You will be expected to complete the practice quiz for each chapter before taking the chapter exam in class. Please use these practice quizzes as a study aid to help prepare. There will be a combination of in class labs using physical equipment, packet tracer, and virtual remote equipment. There will also be homework labs using packet tracer and remote equipment.

**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: 35% Chapter Exams: 25% Skill Exam: 15% Final Exam: 15%**

**Chapter Quizzes: 10%**

**Final grade for the course will be weighted 20% from 2415A and 80% from 2415B**

**A grade of 30% or higher on the Skill Exam for the 2415B section is required to pass the class.**

**Late Work:**

Most work will require meeting with the instructor to complete if missed. Please inform the instructor of any absences as soon as possible, e-mail is preferred. 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 2415 are designed to cover the costs of equipment maintenance and replacement such as routers and servers, annual Cisco training fees, and consumable materials and supplies.

**Academic Honesty:**

Any attempt to gain 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](http://www.weber.edu/ppm/Policies/6-22_StudentCode.html)

**Campus Closure:**

In the event of the campus being closed, please check the Canvas portal for course instruction.