IT3400 - Cisco Switching, Routing, and Wireless Essentials

Spring 2022 Syllabus

This class instructs students in the installation, configuration and troubleshooting of Cisco routers and switches. The goal of this course is to further prepare you for the Cisco CCNA7 Certification Exam.

Prerequisites: IT2400 with a C grade or better, or instructor’s permission

Course fee: $20, used to assist in maintaining CIT infrastructure.

One section:

*IT3400-01 TR 1:30pm-2:45pm Smith ComputerCtr 107

*Final exam: Tuesday May 3 @ 1pm

Instructor:

- Jay Sneddon
- Office: Burns 235
- Office hours: MTWR 12:00pm-12:50pm or by appointment. Zoom appointments may be arranged.

Objectives

At the end of the course, students will be able to:

- Install and configure Cisco routers and switches
- Design and troubleshoot advanced router and switch configurations
- Understand and design effective Virtual LANs and VLAN routing
- Setup and configure load balancing and failover routing and switching services.
- Install, configure, optimize and secure an enterprise wireless system
- Design and utilize advanced IPv4 and IPv6 addressing strategies

Resources

The textbook is all online through Cisco’s Networking Academy (https://www.netacad.com/). Students are required to have an active account there.

Cisco PacketTracer is required for many of the homework assignments. The latest version is available for download on the netacad site.

Labs

The computers in the Smith Computing Center are specially equipped for CIT courses and have Cisco PacketTracer and Wireshark installed for CIT student use.

These computers require a valid CIT username and password. If you do not already have a CIT login, visit the CIT password self service page to create one, or ask a lab assistant to help you sign up for one.

Course Information

You are responsible for being informed regarding announcements, the schedule, and other resources posted on this website. Grading and assignments are managed on Canvas.

Assignments and Exams

Assignments

Assignments will be graded based on completeness and a grading rubric. Assignments will either be done using Cisco Packet Tracer or NetLabs.

(See the Late Work policy for more information)

All assignments are due Saturday night at 11:59pm, unless otherwise noted. The primary reason for this is the Smith Computing Center is not open on Sundays.
Exams

This course will feature five Cisco standardized exams plus a final and final skills exam. These exams are found on the Cisco Networking academy website.

Grading

Assignments, quizzes and exams each contribute to your point total. PacketTracer (25%), Module Exams (20%), Netlabs (20%), Skills Exam (15%), and Final Exam (20%).

Here is the grading scale: >= 94 = A >= 90 = A- >= 87 = B+ >= 84 = B >= 80 = B- >= 77 = C+ >= 74 = C >= 70 = C- >= 67 = D+ >= 64 = D < 64 = F

Course Policies

Absences

Students are responsible for material covered and announcements made in class. School-related absences may be made up only if prior arrangements are made. The class schedule on Canvas presented is approximate. The instructor reserves the right to modify the schedule according to class needs. Changes will be announced in class and posted to the website. Exams and quizzes cannot be made up unless arrangements are made prior to the scheduled time.

Policy for Absences Related to College Functions

Students may periodically miss classes for various college-related functions or military functions; these include athletics, club events, or to fulfill the requirements of a course or a program. Military functions may include: Reserve and Guard activation, activation, special assignments or other approved events or activities. These absences may often conflict with the instruction, assignments, and tests in this course.

Please provide an advanced written notification from your activity supervisor that explains the nature of the activity, and the anticipated time missed.

Time

Courses should require about 2 hours of outside work per lecture hour of class. This class will require about 6 hours of work per week on the part of the student to achieve a passing or higher grade. Be sure to evaluate your schedule before committing to this course.

Late work

Assignments, quizzes and exams are due on the date specified in the schedule. Late work will be accepted but penalized.

Arranging make up quizzes and exams is despised by the instructor. It makes me extremely grumpy and moody. The student groveling gets old, and I have heard nearly all of the excuses. That said, clever students come up with new whoppers that get added to an already lengthy list. I am much happier when that cleverness is channeled into coursework learning.

Late work and test penalties are as follows: * 30% penalty the first two weeks past the due date * 50% penalty thereafter. * No late work will be accepted during Finals week. * I have the option to reject any late work regardless of the submission date.

Disruptive Behavior Policy/Classroom Expectations

The classroom needs an atmosphere of learning and sharing. Class members need to feel safe and able to concentrate. Disruptive behavior that seriously detracts from this environment or inhibits the instructor’s ability to conduct proper instruction will not be allowed. Disruptive behavior includes:

- Physical violence, verbal abuse, or harassment
- Intoxication or illegal drug use
- Use of profanity
- Failing to respect others when expressing their own viewpoints
- Talking while the instructor or another student is talking
- Constant questions or interruptions that interfere with classroom presentation

Disruptive class members will be warned. Continued misbehavior may lead to dismissal from class or the course. If necessary, Campus Police may be called.
Covid-19 Seating and Attendance Requirements

The schedule and/or location for this course may change due to circumstances precipitated by an epidemic, pandemic, inclement weather, and/or incidences beyond the control of the department or instructor.

It is strongly recommended that students attend in-person if practical. There is enough room in SCC 107 for all students to attend in-person and still social distance. Group and hands-on projects require attendance and cannot be made up. That said, this class will be taught synchronously, and Zoom will be made available if requested.

Attendance will be taken each day, regardless if in person or through Zoom. Lectures will NOT be recorded for later playback.

If you become quarantined because of Covid, please notify the instructor immediately. A doctor’s note or a copy of the positive test result must accompany any request for a quiz or exam rescheduling.

In-class:
- Cloth face coverings are required for in-person attendance (please note that face shields will not be allowed as a substitute for a cloth face covering)
- You are encouraged to bring your own laptop (especially if you want to use that laptop to complete work from home).

Cheating and Collaboration

Limited collaboration with other students in the course is permitted and encouraged. Students may seek help learning concepts and developing programming skills from whatever sources they have available, and are encouraged to do so. Collaboration on assignments, however, must be confined to course instructors, lab assistants, and other students in the course. See the section on cheating.

Cheating will not be tolerated, and will result in a failing grade for the students involved as well as possible disciplinary action from the college. Cheating includes, but is not limited to, turning in homework assignments that are not the student’s own work. It is okay to seek help from others and from reference materials, but only if you learn the material. As a general rule, if you cannot delete your assignment, start over, and re-create it successfully without further help, then your homework is not considered your own work.

You are encouraged to work in groups while studying for tests, discussing class lectures, and helping each other identify errors in your homework solutions. If you are unsure if collaboration is appropriate, contact the instructor. Also, note exactly what you did. If your actions are determined to be inappropriate, the response will be much more favorable if you are honest and complete in your disclosure.

Where collaboration is permitted, each student must still create and type in his/her own solution. Any kind of copying and pasting is not okay. If you need help understanding concepts, get it from the instructor or fellow classmates, but never copy another’s written work, either electronically or visually. It is a good idea to wait at least 30 minutes after any discussion to start your independent write-up. This will help you commit what you have learned to long-term memory as well as help to avoid crossing the line to cheating.

College Policies

Additional college policies, calendars, and statements are available online at http://new.dixie.edu/reg/syllabus/.