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:** IT3400 and IT3150 with a C- grade or better, or instructor’s permission

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

**One section:**
- IT4400-01 MWF 8am-8:50am Smith Computer Ctr 107 or online via Zoom
- **Final exam:** Wednesday December 9 @ 7am

**Instructor:**
- Jay Sneddon
- Office: Burns 235
- Office hours (in person or online): MWF 10am-10:50am, TR 11am-11:50am

### 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 is specially equipped for CIT courses and had 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](https://www.netacad.com/) 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](https://www.netacad.com/).

### Assignments and Exams

**Assignments**

Assignments will be graded based on completeness and a grading rubric. Assignments build upon previous ones, as we will be building out a Windows server environment.

(See the Late Work policy for more information)

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

**Exams**
This course will feature weekly quizzes and four exams, culminating in a final.

**Grading**

Assignments, quizzes and exams each contribute to your point total. PacketTracer (30%), Module Exams (20%), Netlabs (20%), Skills Exam (15%), and Final Exam (15%).

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.

**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 are due on the date specified in the schedule. The instructor has the right to reject any late assignments.

**Covid-19 Seating and Attendance Requirements**

This class will be taught synchronously and in class. Students have the choice of attending in person or online through Zoom or both. You are allowed to attend solely online if you choose. Attending in person will only be possible if space is available.

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

There is enough room in SCC 107 for all students in IT4400 to attend in-person every week if you wish. If you are planning to attend via live-stream (Zoom), please let me know so I can make sure everything is working for you.

In class:

- Assigned seating is required for COVID-19 contact tracing
- 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.

**Policy for Absences Related to College Functions**

Students may periodically may 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.

**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.

**College Policies**

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