

ITNW 2353

Advanced Routing and Switching

Spring 2019

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Course Name: ITNW 2353

Course Description

Advanced concepts for the implementation, operation, and troubleshooting of switched and routed environments. Emphasizes advanced routing protocols, Multi Protocol Label Switching (MPLS), and advanced security. In this class we will explore implementing advanced routing protocols; configuring route filtering and redistribution, advanced security, and scalable multilayer-switched LANs; implementing appropriate technologies to build a scalable routed network; implementing campus networks using multilayer switching technologies; and analyzing traffic flow, reliability, redundancy, and performance for campus LANs, routed and switched WANs, and remote access networks.

Hybrid

This is a hybrid format class. This means we will meet for class once a week, and the remaining part of the course will be online. You must check Blackboard regularly for updates, otherwise you may miss an important announcement. Our in class meeting will be a mix between in class labs and lectures. Attendance is extremely important.

Textbook and Hardware Requirements

We will be using Cisco Network Academy LMS and content in this course. The following books are **optional** as the eBook is part of the LMS.

- Cisco Networking Academy Scaling Networks v6 Companion Guide ISBN: 9781587134340
- Cisco Networking Academy Connecting Networks v6 Companion Guide ISBN: 9781587134326

Software Requirements

Because some of the assignments will be done and submitted outside of class, you will need access to the following programs outside of the classroom:

- Web browser (Google Chrome suggested)

Assumed Knowledge

It is assumed that you possess basic computer skills relating to using the internet, applications and other basic computing tasks. It is also assumed that you have decent keyboarding skills. It is also assumed that you have taken or possess the needed knowledge equal to ITNW1325 Fundamentals of Networking, ITSC1325 PC Hardware and ITNW2312 Routers. If you have not

taken those courses, or question your knowledge, please contact me ASAP about how to proceed. It is also assumed that if you run into content you do not understand; you will research that content on your own as well as ask the instructor for assistance.

Communication

Communication for this class will be conducted through SPC email. All students will be required to check their SPC student email accounts regularly for course updates and announcements. Please include your name, course name, and section number in all email communication. Other important announcements may be given during in-class meetings, so attendance is key for complete communication.

Attendance Policy

You will be **dropped** from the course with an “X” or an “F” after **four** absences, or if I feel the objectives cannot be met due to excessive absence. If you are not sure how many absences you have accumulated, please be sure to notify me so that I can provide you with an absentee count.

If you are absent, you are still required to complete the assigned work by the indicated due date. You’ll want to be sure to ask a classmate what material you missed on the day you were absent so that you’ll be caught up when you return. I will not repeat the information you missed when you return. Tardiness may result in an absence.

Reading/Study Assignments

Mandatory, assigned reading is a requirement for this course. Reading assignments includes all material in the NetAcad course content that is assigned for a given week. Flash cards and quizzes are study assignments. These are not taken for a grade but are helpful in preparing for homework assignments and exams. Although reading/study assignments are not taken for a grade, they are required to be successful in this course.

Quizzes

There will have one quiz per chapter. These quizzes can be taken multiple times and do not count toward the final grade.

Packet Tracer and Hands-On Labs

Regular packet tracer and hands-on labs will be completed throughout the semester. Hands-on labs will be completed in class and you must be present on that class day to complete labs. Packet tracer labs will be completed in class and as homework (online).

Chapter Exams

There will be one exam per chapter. These exams will prepare you for the midterm/final exams and should help you determine how well you have learned/mastered the content.

Grades

Grades will be calculated as follows:

	Possible Points
Packet Tracer and Hands-On Labs	25%
Chapter Exams	25%
Skills Exams (Midterm and Final)	25%
Midterm and Final Exam	25%

All assignments are mandatory. **I reserve the right to drop or fail you if homework assignments are frequently missed or incomplete.**

Grades will be available through Cisco NetAcad and will be updated in Blackboard periodically.

Certifications

This class will prepare the student to take the ICND2 exam which qualifies the student for the Cisco Certified Network Associate Routing and Switching certification (CCNA). This is the second step in getting a CCNA certification. Students are not required to take this certification, but are strongly encouraged to do so.

In-Class Computer, Cell Phone and iPod Use

Students will **not** be allowed to surf the web, check their personal e-mail or social media accounts, or do work for any other course while class is in session. **Students will not be allowed to use their cell phones during class.** If the student is found using social media, surfing the web, or using their cell phone, they will be asked to leave the class and they will be counted absent for that day. If the incident reoccurs, they will be reported to the dean of students. In cases of emergency, the student is asked to leave the classroom to use their cell phone. **If a student has a cell phone or other device out during an exam, they will be asked to leave and will get a zero for that exam.**

Food and Drinks

No food or drinks are allowed in the lab area. Do not bring those to class. If you do, you will be asked to leave class and counted as absent. If this happens more than once you may be dropped from the class.

Drop Policy

You may be dropped from this course for the following reasons:

- Attendance
 - You have four or more absences
- Participation, completion of homework, exams, and team project
 - You have missed 2-3 classes and several homework assignments
 - You have missed several homework assignments
 - You have missed two or more exams without rescheduling with the instructor
- Academic Integrity
 - Cheating, plagiarism, or sharing your work with others

Academic Integrity

It is the aim of the faculty at South Plains College to foster a spirit of complete honesty and a high standard of integrity. The attempt of any student to present as his or her own any work which he or she has not honestly performed is regarded by the faculty and administration as a most serious offense and renders the offender liable to serious consequences and possible suspension. Please refer to the SPC General Catalog regarding consequences for cheating and plagiarism. **I reserve the right to administratively drop with an “F” any student whom I suspect of academic dishonesty.**

****Do not, under any circumstances, turn in another student’s file as your own. Do not, under any circumstances, give your file to anyone else to turn in as their own. Both situations are representative of academic dishonesty and will be treated as such.****

Disclaimer

Because we will use Blackboard to conduct a portion of this class, please note that the materials you may be accessing in chat rooms, bulletin boards or unofficial web pages are not officially sponsored by South Plains College. The United States Constitution rights of free speech apply to all members of our community regardless of the medium used. We disclaim all liability for data, information or opinions expressed in these forums.

Diversity Statement

In this course, the teacher will establish and support an environment that values and nurtures individual and group differences and encourages engagement and interaction. Understanding and respecting multiple experiences and perspectives will serve to challenge and stimulate all of us to learn about others, about the larger world, and about ourselves. By promoting diversity and intellectual exchange, we will not only mirror society as it is, but also model society as it should be and can be.

Special Services

4.1.1.2 Disabilities Statement

Students with disabilities, including but not limited to physical, psychiatric, or learning disabilities, who wish to request accommodations in this class should notify the Disability Services Office early in the semester so that the appropriate arrangements may be made. In accordance with federal law, a student requesting accommodations must provide acceptable documentation of his/her disability to the Disability Services Office. For more information, call or visit the Disability Services Office through the Guidance and Counseling Centers at Reese Center (Building 8) 716-4606, or Levelland (Student Services Building) 716-2577.

Counseling

If at any point in the semester you find yourself having trouble with stress or feel depressed please stop in and see a counselor. Counseling services are available at all campuses. The number for the counseling office is 806-716-2366. Below is a link to SPC’s personal counseling services.

<http://www.southplainscollege.edu/information-for/current-spc-students/counseling-current/personal-counseling.php>