Course Description: This course describes the architecture, components, and operation of routers, and explains the principles of routing and routing protocols. Students analyze, configure, verify, and troubleshoot the primary routing protocols RIPv1, RIPv2, EIGRP, and OSPF. Recognize and correct common routing issues and problems. Model and analyze routing processes.

Prerequisite: ITCC 1314 - Cisco 1

Text and Supplies: CISCO Online Curriculum

Student Learning Outcomes:

Upon successful completion of the course, students will have the ability to accomplish the following competencies accurately and efficiently:

Describe the purpose, nature and operations of a router. Explain the role routers play in communicating across multiple networks.

Troubleshoot and secure networking equipment and configurations.

Initialize and configure routers for use in network communications.

Describe the role of dynamic routing protocols. Identify protocols place in context of modern network design.

Deploy a network configuration using dynamic routing.

Describe the routing table structure, and routing behavior.

Perform configuration backups and restorations.

Identify the characteristics of distance vector routing protocols

Compare and contrast classful and classless IP addressing. Describe classful and classless routing behaviors in routed networks.

Describe the basic features and concepts of link-state routing protocols.
These outcomes are included in this syllabus and will be evaluated on major exams.

Network Design and Administration Skill Standards:

B7 Integrate network components
C1 Plan and document system configuration
C2 Implement new system configuration
C5 Implement deployment
E2 Coordinate, communicate and document changes
E5 Monitor and report component and connectivity problems
F3 Apply maintenance upgrades, security enhancements and process changes
F4 Perform system backups and restore data
F5 Troubleshoot and maintain client, server and network systems

Instructor Information:

Student Contribution: Students are encouraged to contact the instructor at any time. If you need to meet with the instructor you will need to make an appoint to guarantee the instructor’s availability at a specific time. Office hours will be posted in CANVAS.

Students will be expected to exhibit professional behavior in class. With regard to cell phone use, keep it on silence and do not take calls unless it is an emergency.

Students are expected to attend class, for online that means logging in and completing assignments.

Late Work: Assignments will be due on the date assigned. In the event an assignment must be submitted later than the scheduled due date the student must get instructor permission.

This is an online/hybrid class. You will be expected to keep up with the assignments posted in CANVAS. You must email the professor once a week with your progress.

Policy Information:

Students MUST actively participate by completing an academic assignment required by the instructor by the official census date. Students who do not actively participate in an academically-related activity will be reported as never attended and dropped from the course.

This will be an in-depth, fast-paced course. It is important that you complete the assignments before the due dates. Late work will not be accepted. There will be no exceptions to this policy.

Should you find that you are unable to complete the course, it is necessary for you to contact the Office of Student Services at Midland College and officially drop the class; otherwise a grade of “F” will be given for the semester grade.

Class Policy:

It is each student’s responsibility to become familiar with Midland College policies as explained in the Midland College Student Handbook. Cheating, plagiarism, and any other form of academic dishonesty will not be tolerated.
Course Schedule: Posted in CANVAS

Grading/Evaluation of student:

Grading Formula:

90% - 100%  A
80% - 89%  B
70% - 79%  C
60% - 69%  D
Below 60%  F

Your final grade will be calculated as follows:

Lab exercises  45%
Final Exam  20%
Exams  35%

Students with Disabilities:

Midland College provides services for students with disabilities through Student Services. In order to receive accommodations, students must place documentation on file with the Counselor/Disability Specialist. Students with disabilities should notify Midland College prior to the beginning of each semester. Student Services will provide each student with a letter outlining any reasonable accommodations. The student must present the letter to the instructor at the beginning of the semester.

Instructor Information: Posted in CANVAS

Applied Technology Division

Contact Information
Division Dean: Curt Pervier
Department Chair: Heather Sanders
Division Secretary: Lisa Hays
Division Office: Room TC 143A
Division Telephone: (432)685-4676
Division Fax: (432)685-4672
Midland College does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities. The following individuals have been designated to handle inquiries regarding the non-discrimination policies: Tana Baker, Title IX Coordinator/Compliance Officer, 3600 N. Garfield, SSC 242, Midland, TX 79705, (432) 685-4781, tbaker@midland.edu; Natasha Morgan, Director Human Resources/Payroll, 3600 N. Garfield, PAD 104, Midland, TX 79705, (432) 685-4534, nmorgan@midland.edu. For further information on notice of non-discrimination, visit http://wdcrobcolp01.ed.gov/CFAPPS/OCR/contactus.cfm or call 1 (800) 421-3481.

Spanish
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