Midland College Syllabus
ITNW 2413
Networking Hardware

Course Description:
Exploration of hardware devices including cables, servers, and workstations, network connectivity devices and uninterruptible power supplies

Prerequisite: ITCC 1404 - Cisco 2

Text and Supplies: Online Curriculum

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

Identify the basics of computer hardware.

Configure network settings required to connect a PC to a network.

Understand basic networking terminology.

Apply safety rules, regulations, and procedures in a networking environment.

Apply mathematical and scientific concepts, techniques, and operations to application in a networking environment.

Demonstrate proficiency at interconnecting network devices

Demonstrate an understanding of Ethernet architectures.

Demonstrate an understanding of TCP/IP addresses and subnets, subnet masks and subnet planning.

Demonstrate an understanding of network media, routing problems, and user interface problems.

Demonstrate an understanding of network devices (CSU/DSU, repeaters, bridges, hubs, switches, and routers).

Demonstrate the ability to build and test LANs.

Implement various wired/wireless standards

Demonstrate the ability to perform fundamental LAN design tasks.
Completion of skills test to include:

a. Build patch, console, and crossover cables.

b. Connect a workstation to a LAN.

c. Complete network installation from telecommunications outlet through patch panel.

d. Implement planned cable infrastructure using Panduit best practices.

e. Troubleshoot network problems introduced by instructor.

Texas Skill Standards Learning Outcomes:

This course also includes Learning Outcomes which are key activities specified in skill standards developed by the National Workforce Center for Emerging Technologies and recognized by the Texas skill Standards Board. The complete skill standards can be found at:

https://www.tssb.org/

These outcomes are included in this syllabus and will be evaluated on major exams.

Network Design and Administration Skill Standards:

A3 Define scope of work
A4 Review network architecture, topology, interdependencies and constraints
A5 Research technical alternatives and analyze technical options
B3 Recommend selection of architecture, topology, hardware and software
B4 Prepare capacity and throughput plan
B6 Specify wired and wireless facilities
B7 Integrate network components
C6 Manage contract personnel
C7 Install hardware
D1 Define and document test specification
D4 Document, interpret and report test results
D5 Perform final tests and gain customer acceptance
D6 Perform functional verifications and system audits
E3 Manage inventory
E4 Analyze system performance to baseline
E5 Monitor and report component and connectivity problems
E8 Monitor capacity to ensure required service levels
F6 Develop growth and capacity plans and make recommendations
**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
Online requirements:
Midland College uses CANVAS for online instruction and communication with students. Students are expected to regularly check CANVAS. Check each week before class for important notices.
You can enter the URL: *midland.instructure.edu* to login into CANVAS.

Logging in to Canvas

**username**
**MC Students:** Midland College email address (example: jdoe123@mail.midland.edu)
IMPORTANT: MC Students enrolled BEFORE Winter Interim 2011, your email address follows the old format. Please see the [Student Email page](#) to determine your MC Email address.

**password**
MC Students: Midland College Student ID Number - no dashes (example: 123006789)

Additional Materials Required:

8 GB Flash Drive

**Grading/Evaluation of student:**

**Grading Formula:**

<table>
<thead>
<tr>
<th>Percentage Range</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>90% - 100%</td>
<td>A</td>
</tr>
<tr>
<td>80% - 89%</td>
<td>B</td>
</tr>
<tr>
<td>70% - 79%</td>
<td>C</td>
</tr>
<tr>
<td>60% - 69%</td>
<td>D</td>
</tr>
<tr>
<td>Below 60%</td>
<td>F</td>
</tr>
</tbody>
</table>

**Your final grade will be calculated as follows:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lab exercises</td>
<td>45%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>20%</td>
</tr>
<tr>
<td>Chapter Exams</td>
<td>35%</td>
</tr>
</tbody>
</table>

**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

The content, schedule, administration, and management of this course are subject to change at any time. The instructor reserves the right to modify the schedule contained in this syllabus at any time.

**Applied Technology Division**

Contact Information

<table>
<thead>
<tr>
<th>Division Dean:</th>
<th>Curt Pervier</th>
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</thead>
<tbody>
<tr>
<td>Department Chair:</td>
<td>Heather Sanders</td>
</tr>
<tr>
<td>Division Secretary:</td>
<td>Lisa Hays</td>
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<tr>
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<td>Room TC 143A</td>
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<td>Division Telephone:</td>
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<tr>
<td>Division Fax:</td>
<td>(432)685-4672</td>
</tr>
</tbody>
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**Spanish**

Midland College no discrimina por motivos de raza, color, nacionalidad, sexo, discapacidad, o edad en sus programas o actividades. Las siguientes personas han sido designadas para responder a cualquier pregunta o duda sobre estas políticas no discriminatorias: 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. Para más información sobre estas políticas no discriminatorias, visite [http://wdcrocolp01.ed.gov/CFAPPS/OCR/contactus.cfm](http://wdcrocolp01.ed.gov/CFAPPS/OCR/contactus.cfm) o llame al 1 (800) 421-3481.