SOUTHWEST TECH
SOUTHWEST TECHNICAL COLLEGE

TEIT 2171 - Computer Networks II (2 Credits)

Course Description

Computer Networks II examines network design and architecture considerations, network documentation, change management, network monitoring methods and solutions, configuration management, network security hardening techniques, and basic datacenter, cloud, and virtual-network concepts. This course aligns with objectives from popular networking certifications.

Course Objectives

- Compare and contrast networking appliances, applications, and functions.
- Identify the purpose of organizational processes and procedures.
- Use protocols, tools, and techniques to monitor network activity and troubleshoot performance and availability issues.
- Identify and implement network defense techniques, security features, and security solutions.
- Configure secure enterprise wireless networks.
- Identify basic datacenter, cloud, and virtual-networking concepts.
- Compare and contrast network access and management methods.

Course Outline

- Specialized Networks
- Wireless Networking
- Wide Area Networks, Operations and Management
- Security, Optimization and Troubleshooting

Textbook & Reading Materials

TestOut Network Pro, Test Out, ISBN: 9781935080435

Assignments and Assessments

10.1 - Aut hentication
10.1.9 - Lesson Review
10.2.5 - Lab: Manage Account Policies
10.2.6 - Lesson Review
10.3.3 - View Linux Services
10.3.5 - Lab: Scan for Unsecure Protocols
10.3.6 - Lab: Enable and Disable Linux Services
10.3.7 - Lab: Disable Network Service
10.3.8 - Lesson Review
10.4.2 - Lab: Secure Access to a Swit ch
10.4.3 - Lab: Secure Access to a Swit ch 2
10.4.4 - Lab: Disable Switch Ports - GUI
10.4.7 - Lab: Harden a Switch
10.4.9 - Lesson Review
Student Acknowledgement Statement Module 1
Checkpoint Meeting Module 1
10.5 - Network Security Rules
10.5.6 - Lab: Configure Network Security Appliance Access
10.5.7 - Lab: Configure a Security Appliance
10.5.8 - Lab: Configure a Perimeter Firewall
10.5.9 - Lab: Restrict Telnet and SSH Access
10.5.10 - Lab: Permit Traffic
10.5.11 - Lab: Block Source Hosts
10.5.12 - Lesson Review
10.6 - Module Quiz
11.1.5 - Lab: Configure a Screened Subnet (DMZ)
11.1.6 - Lab: Configure Screened Sub nets
11.1.9 - Lab: Implement Intrusion Prevention
11.1.10 - Lesson Review
11.2.5 - Lab: Scan for IoT Devices
11.2.6 - Lesson Review
11.3.4 - Lab: Implement Physical Security
11.3.5 - Lesson Review
11.4 - Module Quiz
12.1.9 - Lab: Configure Wireless Profiles
12.1.10 - Lesson Review
Student Acknowledgement Statement Module 2
Checkpoint Meeting Module 2
12.2.8 - Lab: Design an Indoor Wireless Network
12.2.9 - Lab: Design an Outdoor Wireless Network
12.2.10 - Lab: Implement an Enterprise Wireless Network
12.2.11 - Lesson Review
12.3 - Wireless Security
12.3.7 - Lab: Configure a Captive Portal
12.3.8 - Lab: Create a Guest Network for BYOD
12.3.9 - Lab: Secure an Enterprise Wireless Network
12.3.10 - Lab: Secure a Home Wireless Network
12.3.11- Lab: Enable Wireless Intrusion Prevention
12.3.12 - Lesson Review
12.4.7 - Lab: Explore Wireless Network Problems
12.4.8 - Lab: Troubleshoot Wireless Network Problems
12.4.9 - Lab: Optimize a Wireless Network
12.4.10 - Lesson Review

12.5 - Module Quiz
12.6 - Checkpoint Review
Student Acknowledgement Statement Module 3
Checkpoint Meeting Module 3
13.1.4 - Lesson Review
13.2.8 - Lab: Configure a Remote Access VPN
13.2.9 - Lab: Configure an iPad VPN Connection
13.2.10 - Lab: Configure a RADIUS Solution
13.2.11- Lesson Review
13.3.8 - Lab: Allow Remote Desktop Connections
13.3.9 - Lab: Use PowerShell Remote
13.3.10 - Lesson Review
13.4 - Module Quiz
14.1.5 - Lab: Configure an iSCSI Target
14.1.6 - Lab: Configure an iSCSI Initiator
14.1.7 - Lesson Review
14.2.5 - Lesson Review
14.3.7 - Lesson Review
14.4.9 - Lesson Review
14.5 - Module Quiz
Student Feedback Survey
End of Course Student Acknowledgement Statement
Course Completion Checkpoint Meeting

Subject to change. Please consult your Canvas course for the most current instructions and updates.

Classroom Hours

Mo, Tu, W, Th, Fr
8:00 AM - 11:00 AM
12:00 PM - 3:00 PM

For a full list of course hours visit: [Course Schedule](#)

Instructor Contact Information

Greg Davis — gdavis@stech.edu
Austin Prince — aprince@stech.edu

Office Hours: By appointment

Email is the preferred method of communication; you will receive a response within 24 hours during regular business hours.

Canvas Information

Canvas is the where course content, grades, and communication will reside for this course.

- stech.instructure.com
- For Canvas passwords or any other computer-related technical support contact Student Services.
- For regular Hours and Weekdays call (435) 586 - 2899.
- For after Hours & Weekends call (435) 865 - 3929 (Leave a message if no response).

Course Policies

Course Grading: All assignments in this course require 100% score with unlimited submissions. All quizzes require a minimum score of 80%.

High School Power School Grades: Quarter student grades will be determined by student progress percentage. Faculty will use the higher percentage of either 1) quarter progress, or 2) cumulative progress for the current training plan year.

Grade Scale: The following grading scale will be used to determine a letter grade.

A : 94 - 100%	B : 83 - 86%	C : 73 - 76%	D : 63 - 66%
A- : 90 - 93%	B- : 80 - 82%	C- : 70 - 72%	D- : 60 - 62%
B+ : 87 - 89%	C+ : 77 - 79%	D+ : 67 - 69%	F : 0 - 59%

Course Policies: You are required to keep your progress and attendance at 67% minimum. You must complete this program within 150% estimated program length. You are permitted one 15 minute break every 90 minutes. If you take more than one break in a 90 minute period or your break lasts longer than 15 minutes, your attendance will be penalized. 10 consecutive absences will lead to being withdrawn from the program. Please notify your instructors about absences as soon as possible. If absence is due to illness, please email your instructors prior to end of day. Cell Phone/Electronics – Cell phones cannot be used during class time. You may bring your personal computers to class. You must be on topic in the lab while clocked-in. Industry Environment – computer science typically is very sedentary. This means you may sit at a desk for long hours. Be sure to move and get what exercise you can.

Additional Information

InformaCast Statement: Southwest Tech uses InformaCast to ensure the safety and well-being of our students. In times of emergency, such as weather closures and delays, this app allows us to promptly deliver notifications directly to your mobile devices. To stay informed and receive real-time updates, we encourage all students to sign up for notifications. Your safety is our priority, and staying connected ensures a swift response to any unforeseen circumstances. More information and directions for signing up are available at: https://stech.edu/emergency-notifications/

Internet Acceptable Use Policy: The student is expected to review and follow the Southwest Technical College Internet Safety Policy at: https://stech.edu/students/policies/

Student Code of Conduct Policy: The student is expected to review and follow the Southwest Technical College Student Code of Conduct Policy at: https://stech.edu/students/policies/

Accommodations: Students with medical, psychological, learning, or other disabilities desiring accommodations or services under ADA, must contact the Student Services Office. Student Services determines eligibility for and authorizes the provision of these accommodations and services. Students must voluntarily disclose that they have a disability, request an accommodation, and provide documentation of their disability. Students with disabilities may apply for accommodations, based on an eligible disability, through the Student Services office located at 757 W. 800 S., Cedar City, UT 84720, and by phone at (435) 586-2899. No diagnostic services are currently available through Southwest Technical College.

Safety and Building Maintenance: The College has developed and follows a variety of plans to ensure the safe and effective operation of its facilities and programs. The following plans are available online:
1) Facilities Operations and Maintenance Plan; 2) Technical Infrastructure Plan; and 3) Health and Safety Plan.

Withdrawals and Refunds: Please refer to the Southwest Technical College Refund Policy at:
https://stech.edu/students/policies/

Any high school or adult student, who declares a technical training objective is eligible for admission at Southwest Technical College (Southwest Tech). Program-specific admissions requirements may exist and will be listed on the Southwest Tech website. A high school diploma or equivalent is not required for admission but is mandatory for students seeking Title IV Federal Financial Aid.

Non-Discriminatory Policy: Southwest Technical College affirms its commitment to promote the goals of fairness and equity in all aspects of the educational enterprise, and bases its policies on the idea of global human dignity.

Southwest Tech is committed to a policy of nondiscrimination. No otherwise qualified person may be excluded from participation in or be subjected to discrimination in any course, program or activity because of race, age, color, religion, sex, pregnancy, national origin or disability. Southwest Technical College does not discriminate on the basis of sex in the education programs or activities that it operates, as required by Title IX and 34 CFR part 106. The requirement not to discriminate in education programs or activities extends to admission and employment. Inquiries about Title IX and its regulations to STECH may be referred to the Title IX Coordinator, to the Department of Education, and/or to the Office for Civil rights.

If you believe you have experienced discrimination or harassment on our campus, please contact the Title IX Coordinator, Cory Estes: cestes@stech.edu, (435) 865-3938.

For special accommodations, please contact the ADA Coordinator, Cyndie Tracy: ctracy@stech.edu, (435) 865-3944.
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