

TEIT 1200 - A+ Core I (3 Credits)

Course Description

A+ Core I prepares students to be successful computer technicians, capable of installing, maintaining, troubleshooting, optimizing, and securing desktop computers, laptops, mobile devices, and printers. This course aligns with the objectives of the CompTIA A+ Core 1 certification exam.

Course Objectives

- Install and configure computer hardware components and peripheral devices.
 - Identify and configure basic networking components and protocols.
 - Install and configure laptops and other mobile devices.
 - Diagnose and troubleshoot device and network issues.
 - Compare and contrast cloud computing concepts.
 - Configure client-side virtualization.
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Course Outline

- PC Hardware
 - Storage and Troubleshooting
 - Networking Basics
 - Remote Access and Virtualization
 - Mobile Devices and Printing
 - Support Procedures
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Textbook & Reading Materials

TestOut PC Pro, Test Out, ISBN: 9781935080428

Assignments and Assessments

Course Introduction and Standards	4.2.13 -Troubleshooting Problems with Storage Drives & RAID Arrays
Meet Your Instruction Team	4.2.14 - Lesson Review
Rules of the Lab	4.3.8 - Troubleshooting Video, Projector & Display Issues
CS Code of Conduct Policy	4.3.9 - Lab: Troubleshoot GPU
Submitting Assignments in Canvas	4.4 - Lab: Resolve PC Hardware Support Tickets
Taking a Screenshot	4.5 - Lab: Troubleshoot a Malfunctioning Computer
Orientation	4.7 - Module Quiz
Orientation Acknowledgement	4.8 - Checkpoint Review
Syllabus Agreement	Student Acknowledgement Statement Module 2
Module 1.0 introduction	Checkpoint Meeting Module 2
1.4 - Module Quiz	Module 5.0 introduction
2.1.2 - Lab: Explore the Lab Interface	5.1.4 - SOHO, Enterprise, and Personal Area Networks
2.1.6 - USB Cables and Standards	Skills Check: Networking Rack Equipment
2.1.7 - Lab: Install USB Devices	5.1.5 - Lesson Review
2.1.16 - Lab: Set Up a Desktop Computer	5.2.2 - Lab: Select and Install a Network Adapter
2.1.17 - Lesson Review	5.2.4 - Wiring a Patch Panel
2.2.9 - Install a Motherboard	5.2.5 - Lab: Connect Patch Panel Cables
Skills Check: Motherboard Form Factors	5.2.7 - How Does an Access Switch Forward Data?
2.2.11 - Lab: Choose and Install a Motherboard	5.2.8 - Lab: Connect Computers with a Switch
2.2.13 - Lab: Upgrade a Video Card	5.2.11 - Lesson Review
2.2.17 - Installing & Configuring Motherboards, CPUs & Add-on Cards	5.3.3 - Activity: Identify Unshielded and Shielded Twisted Pair
2.2.18 - Lesson Review	5.3.6 - Activity: Identify Copper Connectors
2.3.2 - Lab: Select and Configure Dual Monitors	5.3.12 - Activity: Identify Fiber Optic Connectors
2.3.5 - Lesson Review	5.3.14 - Lesson Review
2.4 - Lab: Set up an A/V Workstation	5.4.13 - Lab: Secure a Small Wireless Network
2.6 - Module Quiz	5.4.14 - Lab: SOHO Wi-Fi Configuration Settings
Student Acknowledgement Statement Module 1	5.4.15 - Lesson Review
Checkpoint Meeting Module 1	5.6 - Module Quiz
Module 3.0 introduction	6.1.4 - Lab: Connect a Cable Modem
3.1.2 - Lab: Install a Power Supply	6.1.6 - Lab: Connect Fiber Optic Cables
3.1.9 - Lab: Troubleshoot Power Supply Problems	6.1.11 - Lesson Review
3.1.14 - Lesson Review	6.2.7 - Lab: Configure IP Addresses
3.2.1 - Storage Devices	6.2.13 - Static vs Dynamic
3.2.9 - RAID Types	6.2.16 - Lesson Review
3.2.12 - Lab: Install SATA Devices	6.3.3 - Network Packets
3.2.13 - Lesson Review	6.3.5 - Wireshark
3.3.4 - Lab: Select Memory by Sight	6.3.7 - Lesson Review
3.3.7 - Lab: Install Triple Channel Memory	6.4.8 - Lesson Review
3.3.9 - Lesson Review	6.5 - Challenge Lab: Install a SOHO Network
3.4.8 - Install a Processor	6.7 - Module Quiz
3.4.9 - Lesson Review	Student Acknowledgement Statement Module 3
3.5 - Challenge Lab: Troubleshoot Memory	Checkpoint Meeting Module 3
3.7 - Module Quiz	Module 7.0 introduction
4.1.2 - Lab: Find BIOS/UEFI Settings	7.1.7 - Navigate a Mailbox Server
4.1.7 -Activity: Secure Boot Feedback	7.1.12 - Lesson Review
4.1.9 - Activity: TPM Hash Comparison	7.2.2 - Lab: Use a Proxy Server
4.1.10 - Lab: Configure BIOS/UEFI Security	7.2.8 - Lesson Review
4.1.11 - Lesson Review	7.3.3 - Lab: Fix a Network Connection
4.2.2 - Lab: Troubleshoot System Power	7.3.7 - Lesson Review
4.2.4 - Lab: Troubleshoot System Startup	7.4 - Lab: Troubleshoot a Network Issue
4.2.6 - Lab: Troubleshoot Boot Issues	7.6 - Module Quiz
4.2.10 - Lab: Troubleshoot Drive Availability	7.7 - Checkpoint Review

8.1.3 - Lab: Explore Virtualization
8.1.6 - Lab: Create Virtual Hard Disks
8.1.7 - Lesson Review
8.2.2 - Cloud Deployment
8.2.4 - Use the Azure Interface
8.2.6 - Manage IaaS Virtual Machines (VMs) in Azure That Run Windows Server
8.2.8 - Content Delivery Networks (CDNs)
8.2.9 - Lesson Review
8.4 - Module Quiz
Student Acknowledgement Statement Module 4
Checkpoint Meeting Module 4
Module 9.0 introduction
9.1.4 - Lab: Manage Mobile Devices
9.1.6 - Connect to a Wireless Network
9.1.11 - Configure a Laptop Dock and External Peripherals
9.1.12 - Lesson Review
9.2.8 - Lesson Review
9.3.6 - Lesson Review
9.4.3 - Activity: Hardware Failure Issues
9.4.7 - Lesson Review
9.5 - Challenge Lab: Mobile Hardware Support
Skills Check: Internal Laptop Hardware
9.7 - Module Quiz
10.1.4 - Lab: Select and Install a Printer
10.1.9 - Connect to a Printer
10.1.10 - Lab: Configure Network Printing
10.1.12 - Activity: Security Print and Badging
10.1.14 - Lesson Review
10.2.7 - Printer Basics
10.2.8 - Replace a Printer Fuser
10.2.9 - Replace a Printer Toner
10.2.11 - Lesson Review
10.2.10 - Clear a Paper Jam in a Printer
10.3.6 - Activity: Character Encoding Explorer
10.3.7 - Lesson Review
10.4 - Lab: Resolve Print Services Support Tickets
10.6 - Module Quiz
10.7 - Checkpoint Review
Student Acknowledgement Statement Module 5
Checkpoint Meeting Module 5
Module 11.0 introduction
11.1.6 - Activity: Escalation Levels
11.1.11 - Knowledge Base Articles
11.1.13 - Lab: Create a Ticket
11.1.14 - Lab: Close a Ticket
11.1.15 - Lab: Use Help Desk System
11.1.16 - Lesson Review
11.2.9 - Lesson Review
11.3.8 - Lesson Review
11.5 - Module Quiz
12.1.3 - Lab: Explore Windows Settings
12.1.5 - Using the Windows Desktop Interface
12.1.13 - Lesson Review

12.2.3 - Lab: Configure Windows Update
12.2.7 - Lab: Edit Power Options
12.2.13 - Lesson Review
12.3.5 - Lesson Review
12.4.6 - Lab: Create Azure Storage Account
12.4.7 - Lesson Review
12.6 - Module Quiz
End of Course 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

All Students: This course is pass or fail. All assignments in this course require 100% score with unlimited submissions. All quizzes in this course require a minimum score of 80%. Each module of this course will contain at least one quiz. There is a student/teacher checkpoint meeting at the end of each module. You are required to keep your progress at a 67% minimum throughout the program. Progress is determined by the number of completed module hours (15 hours per module) divided by the number of enrolled hours.

Iron County High School Students: In addition to the above information, Iron County students have the following policies. Your progress grade will be submitted every Friday to PowerSchool. You must maintain a progress percentage of 67% or over to stay in the course. You will receive a No-Grade (NG) in the course until all course fees are paid.

Attendance All Students: You are required to keep your attendance at a 67% minimum throughout the program. Attendance is determined by the number of attended hours divided by the number of enrolled hours. 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. As per Southwest Tech policy, 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.

Iron County High School Students: In addition to the above information, Iron County students must maintain an attendance percentage of 67% or over to stay in the course. **Cell Phone/Electronics** Cell phones cannot be used during class time. In the lab, the PCs are reserved for students in IT courses. All students can use the iMacs, which run OSX, Windows, and Linux operating systems. 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.

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. The progress percentage will be used with the grading scale to determine the minimum grade. **High School Grade Scale:** The following grading scale will be used to determine a letter grade from the progress percentage:

• 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%

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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