

IT SUPPORT PROGRAM OUTLINE

Climb Hire’s IT Support program is designed to give Climbers a practical understanding of Information technology over the course of 24 weeks. Climbers will engage in a deep understanding of mobile devices, networking, hardware, troubleshooting, virtualization and cloud computing. The main goal is to establish a robust understanding of IT security principles as part of their preparation for the A+ certification examination. Once inducted, Climbers will be equipped to pursue a range of entry-level roles in IT Support and Security.

Pre-work: [Module 1](#) - Introduction to IT support Technical Support Fundamentals (6 Modules)

Successful completion of this program will result in (2) certifications:

[CompTIA A+ 220-1101](#)

[CompTIA A+ 220-1102](#)

Plus, an optional IT Support Professional Certificate from Coursera.

Syllabus Overview

Module	Classes/Lab	Topics/Skills
IT Basics Coursera	6 Classes No Lab Assessment: <ul style="list-style-type: none"> • Coursera Module 	<ul style="list-style-type: none"> • Networking <ul style="list-style-type: none"> ◦ What is Networking? ◦ Limitations of the Internet • Hardware <ul style="list-style-type: none"> ◦ The Modern Computer ◦ Components • Software <ul style="list-style-type: none"> ◦ Introduction on Software ◦ Interacting with Software • Troubleshooting <ul style="list-style-type: none"> ◦ Troubleshooting Best Practices ◦ Customer Service/Documentation • Operating Systems <ul style="list-style-type: none"> ◦ What’s an Operating System? ◦ Installing an Operating System

Module	Classes/Lab	Topics/Skills
<p>Mobile Devices</p>	<p>4 Classes 1 Assisted Lab 1 Virtual Work Bench</p> <p>Assessment:</p> <ul style="list-style-type: none"> Supporting Mobile Devices 	<ul style="list-style-type: none"> Laptop Hardware Laptop Displays Mobile Device Configuration <ul style="list-style-type: none"> Connecting Mobile Devices Mobile Device Accessories Mobile Device Connectivity <ul style="list-style-type: none"> Cellular Standards Mobile Device Connectivity Mobile Device Configurations
<p>Networking</p>	<p>7 Classes 2 Assisted Labs 1 Virtual Work Bench</p> <p>Assessments:</p> <ul style="list-style-type: none"> Comparing Local Networking Hardware Configuring Network Addressing and Internet Connections Supporting Network Services 	<ul style="list-style-type: none"> Ports and Protocols <ul style="list-style-type: none"> Introduction to IP Common Network Ports Network Devices <ul style="list-style-type: none"> Software Defined Networking Wireless Networks <ul style="list-style-type: none"> Wireless Network Standards Wireless Network technologies Network Services Network Configurations <ul style="list-style-type: none"> IPv4 and IPv6 Assigning IP Addresses Network Connections <ul style="list-style-type: none"> DNS Configuration DHCP Configuration VLANs and VPNs Internet Connections <ul style="list-style-type: none"> Internet Connection Types Network types Network tools

Module	Classes/Lab	Topics/Skills
Hardware	<p>5 Classes 1 Assisted Lab 1 Virtual Work Bench</p> <p>Assessment:</p> <ul style="list-style-type: none"> Comparing Local Networking Hardware 	<ul style="list-style-type: none"> Cables and Adapters <ul style="list-style-type: none"> Network Cables Optical Fiber Peripheral Cables Video Cables Adapters and Converters Copper Connectors Fiber Connectors Memory <ul style="list-style-type: none"> Memory Overview Memory Technologies Storage Devices <ul style="list-style-type: none"> RAID Motherboards <ul style="list-style-type: none"> Form Factors Expansion Slots Connectors Compatibility BIOS and Settings CPU Features Expansion Cards Cooling Power Multifunctional Devices Printers <ul style="list-style-type: none"> Laser, Inkjet, Thermal, Impact and 3D Printer Maintenance

Module	Classes/Lab	Topics/Skills
Virtualization and Cloud Computing	5 Classes 1 Assisted Lab 1 Virtual Work Bench Assessment: <ul style="list-style-type: none"> Summarizing Virtualization and Cloud Concepts 	<ul style="list-style-type: none"> Cloud Computing <ul style="list-style-type: none"> Cloud Models Cloud Characteristics Client Side Virtualization
Network and Hardware Troubleshooting	6 Classes 1 Assisted Lab 1 Virtual Work Bench Assessment: <ul style="list-style-type: none"> Troubleshooting PC Hardware 	<ul style="list-style-type: none"> Troubleshooting <ul style="list-style-type: none"> Computer Hardware Storage and File Systems Displays Mobile Devices Printers Networks
Exam 1101 Prep	6 Classes Lab Review Assessment: <ul style="list-style-type: none"> CompTIA A+ Core 1 	<ul style="list-style-type: none"> Study for Exam 1101 <ul style="list-style-type: none"> Test Review Lab Prep Voucher Eligibility 1101 Exam Official Certification

Module	Classes/Lab	Topics/Skills
<p>Operating Systems</p>	<p>8 Classes 2 Applied Labs 1 Assisted Lab 1 Virtual Work Bench</p> <p>Assessment:</p> <ul style="list-style-type: none"> Operating Systems 	<ul style="list-style-type: none"> • Microsoft Windows <ul style="list-style-type: none"> ◦ Overview ◦ Features and Upgrades • Windows Commands <ul style="list-style-type: none"> ◦ Command Line Tools ◦ Network Command Line • Windows OS <ul style="list-style-type: none"> ◦ Task Manager ◦ Management Console ◦ Additional Windows Tools • Windows Control Panel • Windows Settings • Windows Networking <ul style="list-style-type: none"> ◦ Network Technologies ◦ Configuring Windows Firewall ◦ IP Address Configuration ◦ Network Connections • Application Installation and Configuration • Operating System Types • Installing and Upgrading Operating Systems • MacOS <ul style="list-style-type: none"> ◦ Overview ◦ System Preferences ◦ Features • Linux <ul style="list-style-type: none"> ◦ Commands ◦ Features

Module	Classes/Lab	Topics/Skills
<p>Security Measures</p>	<p>6 Classes 1 Applied Lab 1 Assisted Lab 2 Virtual Work Benches</p> <p>Assessment:</p> <ul style="list-style-type: none"> • Security Measures 	<ul style="list-style-type: none"> • Security Measures • Wireless Security <ul style="list-style-type: none"> ◦ Encryption ◦ Authentication Methods • Malware • Social Engineering <ul style="list-style-type: none"> ◦ Denial of Service ◦ Zero-Day Attacks ◦ On-Path Attacks ◦ Password Attacks ◦ Insider Threats ◦ Cross-Site Scripting ◦ Security Vulnerabilities • Windows Security • Security Best Practices • Mobile Device Security • Data Destruction • SOHO Networks • Browser Security
<p>Software Troubleshooting</p>	<p>4 Classes 1 Assisted Lab 1 Virtual Work Bench</p> <p>Assessment:</p> <ul style="list-style-type: none"> • Troubleshooting 	<ul style="list-style-type: none"> • Windows <ul style="list-style-type: none"> ◦ Troubleshooting Solutions • Security Troubleshooting • Malware Removal • Mobile Devices and Applications

Module	Classes/Lab	Topics/Skills
Operational Procedures	<p>9 Classes 2 Applied Labs 2 Assisted Labs 2 Virtual Work Benches</p> <p>Assessment:</p> <ul style="list-style-type: none"> Operational Procedures 	<ul style="list-style-type: none"> Documentation and Support Systems <ul style="list-style-type: none"> Ticketing Systems Asset Management Document Types Change Management Backup and Recovery <ul style="list-style-type: none"> Managing Backups Safety Procedures <ul style="list-style-type: none"> Managing Electrostatic Discharge Environmental Impacts Privacy Policies <ul style="list-style-type: none"> Privacy, Licensing, Policies Communication and Professionalism Scripting Remote Access
Exam 1102 Prep	<p>6 Classes Lab Review</p> <p>Assessment:</p> <ul style="list-style-type: none"> CompTIA A+ Core 2 	<ul style="list-style-type: none"> Study for Exam 1102 <ul style="list-style-type: none"> Test Review Lab Prep Voucher Eligibility 1102 Exam Official Certification