

The CompTIA logo is rendered in a white, sans-serif font. The letters 'C', 'o', 'm', 'p', 'T', 'I', and 'A' are connected, with a registered trademark symbol (®) positioned to the upper right of the 'A'. The background of the top half of the page is a gradient from red on the left to purple on the right, featuring faint, semi-transparent geometric shapes like circles, squares, and lines.

CompTIA®

CertMaster Learn Tech+

FC0-U71

COURSE OUTLINE

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1.0 Understanding Tech Basics

1.1 Use Technology Effectively

- 1.1.1 Technology as a Resource
- 1.1.2 Digital Citizenship
- 1.1.3 When Tech Goes Wrong

1.2 Explore the Computing Cycle

- 1.2.1 Input, Processing, Storage and Output
- 1.2.2 What is Input?
- 1.2.3 What is Processing?
- 1.2.4 What is Storage?
- 1.2.5 What is Output?
- 1.2.6 Lesson Review

1.3 Recognize Computing Devices

- 1.3.1 Computers
- 1.3.2 Mobile Devices
- 1.3.3 Gaming Devices
- 1.3.4 The Internet of Things
- 1.3.5 Lesson Review

1.4 Careers in Tech

1.5 Module Quiz

2.0 Data and Privacy

2.1 Understand Your Data

- 2.1.1 The Importance of Your Data
- 2.1.2 Types of Personal Data
- 2.1.3 How Companies Use Your Data
- 2.1.4 Cookies
- 2.1.5 Monetizing Data
- 2.1.6 Lesson Review

2.2 Data Privacy

- 2.2.1 Privacy in Social Media
- 2.2.2 Privacy in Communications
- 2.2.3 Privacy Settings
- 2.2.4 Privacy in Artificial Intelligence (AI)
- 2.2.5 Privacy Regulations
- 2.2.6 Lesson Review

2.3 Passwords and Encryption

- 2.3.1 Encryption Basics
- 2.3.2 Encrypting Data
- 2.3.3 What Needs a Password?
- 2.3.4 Password Management
- 2.3.5 Should I Change My Password?
- 2.3.6 Resetting a Password
- 2.3.7 Lab: Resetting a Password
- 2.3.8 Lesson Review

2.4 Careers in Data and Privacy

2.5 Module Quiz

3.0 Internet Technologies

3.1 Identify Internet Basics

- 3.1.1 Internet is Everywhere
- 3.1.2 What is the Internet?
- 3.1.3 Web Pages and Web Sites
- 3.1.4 Web Browsers
- 3.1.5 Safe Internet Browsing
- 3.1.6 Lab: Safe Browsing Best Practices
- 3.1.7 Lesson Review

3.2 Using a Web Browser

- 3.2.1 Personalize the Browser
- 3.2.2 Customize the Browser Appearance
- 3.2.3 Understand Browser Add-ons
- 3.2.4 Use Browser Privacy Features
- 3.2.5 Maintain the Browser
- 3.2.6 Clear Browser Cache
- 3.2.7 Lab: Clear Browser Cache
- 3.2.8 Lab: Use the Browser
- 3.2.9 Lesson Review

3.3 Internet Service Providers

- 3.3.1 What is an Internet Service Provider (ISP)?
- 3.3.2 Understand ISP Equipment and Performance
- 3.3.3 Cable Internet
- 3.3.4 Lab: Introduction to the Lab Environment
- 3.3.5 Set Up a Small Office or Home Office Network
- 3.3.6 Lab: Connect a Cable Modem
- 3.3.7 Digital Subscriber Line (DSL) Internet
- 3.3.8 Lab: Connect to a DSL Network
- 3.3.9 Fiber Internet
- 3.3.10 Lab: Connect Fiber Optic Cables
- 3.3.11 Wireless Internet
- 3.3.12 Other Wireless Connections
- 3.3.13 Lab: Place Outdoor Wireless Antennas
- 3.3.14 Lesson Review

3.4 Careers in Internet Technologies

3.5 Module Quiz

4.0 Cybersecurity

4.1 Basic Security Concepts

- 4.1.1 Security Strategies
- 4.1.2 Device Security
- 4.1.3 Authentication Factors
- 4.1.4 Lab: Authenticating on a Device
- 4.1.5 Authorization Factors
- 4.1.6 Authorization Basics
- 4.1.7 Lab: Authorization Basics
- 4.1.8 Accounting and Tracking
- 4.1.9 Clear Browser History
- 4.1.10 Lab: Clear Browser History
- 4.1.11 Lesson Review

4.2 Identify Common Security Threats

- 4.2.1 Social Engineering Overview
- 4.2.2 Types of Social Engineering
- 4.2.3 Phishing and Smishing
- 4.2.4 Malware and Spyware
- 4.2.5 Lesson Review

4.3 Security Tools and Software

- 4.3.1 Security Tools in Practice
- 4.3.2 Firewalls
- 4.3.3 Antivirus Software
- 4.3.4 Check for Anti-Malware on a Machine
- 4.3.5 Lab: Check for Anti-Malware on a Machine
- 4.3.6 Software Patching and Updates
- 4.3.7 Lab: Run an OS Patch or Update
- 4.3.8 Lesson Review

4.4 Careers in Cybersecurity

4.5 Module Quiz

4.6 Checkpoint Review

5.0 Networking

5.1 Binary and Other Numbering Systems

- 5.1.1 Binary Basics
- 5.1.2 Binary as Storage
- 5.1.3 Hexadecimal and Octal Systems
- 5.1.4 Lesson Review

5.2 Basic Networking Concepts

- 5.2.1 What is a Network to Me?
- 5.2.2 What Does a Network Do?
- 5.2.3 Network Ports
- 5.2.4 Network Addresses
- 5.2.5 Lab: Explore Network Identifiers
- 5.2.6 Lesson Review

5.3 How Networks Work

- 5.3.1 Networking Models
- 5.3.2 Local Network Types
- 5.3.3 Lab: Build a Small Office Network
- 5.3.4 Wide Area Network Types
- 5.3.5 Networking Devices
- 5.3.6 Wired Network Connectors
- 5.3.7 Wireless Network Connectors
- 5.3.8 Connecting to a Wireless Network
- 5.3.9 Lab: Explore Network Communications
- 5.3.10 Lesson Review

5.4 Small Wireless Network Specifications

- 5.4.1 Understanding Small Wireless Networks
- 5.4.2 Wireless Network Standards
- 5.4.3 Wireless Network Speed
- 5.4.4 Wireless Band Options
- 5.4.5 Securing Small Wireless Networks
- 5.4.6 Secure a Small Wireless Network
- 5.4.7 Lab: Secure a Small Wireless Network
- 5.4.8 Lesson Review

5.5 Virtualization on the Network

- 5.5.1 What is Virtualization?
- 5.5.2 What is the Cloud?
- 5.5.3 Hypervisors and Guest Operating Systems
- 5.5.4 Hardware and Virtual Machines (VMs)
- 5.5.5 Explore Virtualization
- 5.5.6 Lab: Explore Virtualization
- 5.5.7 Lesson Review

5.6 Careers in Networking

5.7 Module Quiz

6.0 Applications and Software

6.1 Common Applications

- 6.1.1 What is Software?
- 6.1.2 Web Browsing Software
- 6.1.3 Email Software
- 6.1.4 Use Microsoft Outlook
- 6.1.5 Lab: Use Microsoft Outlook
- 6.1.6 Messaging Software
- 6.1.7 Lesson Review

6.2 Productivity Software

- 6.2.1 What is Productivity Software?
- 6.2.2 Collaboration Software
- 6.2.3 Work Management Software
- 6.2.4 Use File Sharing Software
- 6.2.5 Lab: Use File Sharing Software
- 6.2.6 Remote Assistance Software
- 6.2.7 Word Processing Software
- 6.2.8 Use Microsoft Word
- 6.2.9 Lab: Use Microsoft Word
- 6.2.10 Spreadsheet Software
- 6.2.11 Lab: Use Microsoft Excel
- 6.2.12 Presentation Software
- 6.2.13 Use Microsoft PowerPoint
- 6.2.14 Lab: Use Microsoft PowerPoint
- 6.2.15 Diagramming and Graphics Software
- 6.2.16 Software for Every Job
- 6.2.17 Lesson Review

6.3 Safely Managing Software

- 6.4.1 Where Do We Find Software?
- 6.4.2 Trusted Sources for Software
- 6.4.3 Software Licensing
- 6.4.4 Installing Software
- 6.4.5 Managing Applications
- 6.4.6 Removing Software
- 6.4.7 Practice Installing & Removing Software
- 6.4.8 Lab: Practice Installing & Removing Software
- 6.4.9 Lesson Review

6.4 The CompTIA Troubleshooting Methodology

- 6.5.1 Standardize the Troubleshooting Process
- 6.5.2 Identify the Problem
- 6.5.3 Establish a Theory of Probable Cause
- 6.5.4 Test the Theory
- 6.5.5 Establish a Plan and Implement the Fix
- 6.5.6 Confirm the Solution Works
- 6.5.7 Document Your Findings
- 6.5.8 Lesson Review

6.5 Careers in Apps and Software

6.6 Module Quiz

7.0 Operating Systems

7.1 What is an Operating System?

- 7.1.1 Operating System Basics
- 7.1.2 Types of Operating Systems
- 7.1.3 Text-Based Operating Systems
- 7.1.4 Lab: Explore Operating Systems - Linux
- 7.1.5 Visual Operating Systems
- 7.1.6 Lab: Explore Operating Systems - iOS
- 7.1.7 Lab: Explore Operating Systems – Windows
- 7.1.8 Configure Windows OS
- 7.1.9 Lab: Configure Windows OS
- 7.1.10 Lesson Review

7.2 What Does an Operating System Do?

- 7.2.1 Drivers and Devices
- 7.2.2 Lab: Update Drivers
- 7.2.3 Application Management
- 7.2.4 Lab: Manage Applications
- 7.2.5 Task Management
- 7.2.6 System Services
- 7.2.7 Lab: Manage Services
- 7.2.8 Lesson Review

7.3 Files

- 7.3.1 Disk Management and Files
- 7.3.2 Working with Files
- 7.3.3 Types of Files
- 7.3.4 Managing Files
- 7.3.5 Manage Files and Folders
- 7.3.6 Lab: Manage Files and Folders
- 7.3.7 Lesson Review

7.4 Data Backup

7.4.1 What Data Should I Back Up?

7.4.2 System Backups

7.4.3 Create a Backup

7.4.4 Lab: Create a Backup

7.4.5 Local Backups

7.4.6 Cloud Backups

7.4.7 Restoring Data

7.4.8 Lesson Review

7.5 Careers in Operating Systems

7.6 Module Quiz

8.0 Hardware

8.1 Units of Speed and Capacity

- 8.1.1 Storage Units
- 8.1.2 Throughput Units
- 8.1.3 Processing Speed
- 8.1.4 Lesson Review

8.2 What's Inside a Computer?

- 8.2.1 The Motherboard
- 8.2.2 The Firmware and BIOS
- 8.2.3 The Central Processing Unit (CPU)
- 8.2.4 The Memory
- 8.2.5 The Graphics Processing Unit (GPU)
- 8.2.6 The Network Interface Card (NIC)
- 8.2.7 Lab: Explore the Inside of a Computer
- 8.2.8 Lesson Review

8.3 Storage Types

- 8.3.2 Computer Storage
- 8.3.3 Network Storage
- 8.3.4 Cloud Storage
- 8.3.5 Lesson Review

8.4 What Can I Connect to My Device?

- 8.4.1 Keyboard and Mouse
- 8.4.2 Lab: Set Up a Computer
- 8.4.3 Video and Audio Devices
- 8.4.4 Printers and Scanners
- 8.4.5 Uninterruptible Power Supplies
- 8.4.6 Lab: Install a UPS
- 8.4.7 Lesson Review

8.5 Installing Connected Devices

8.5.1 Plug-n-Play Installation

8.5.2 Driver Installation

8.5.3 Updating Drivers

8.5.4 Connect to a Printer

8.5.5 Lab: Connect to a Printer

8.5.6 Lesson Review

8.6 Careers in Computer Hardware

8.7 Module Quiz

8.8 Checkpoint Review

9.0 Databases

9.1 Database Basics

- 9.1.1 What is a Database?
- 9.1.2 Explore an Access Database
- 9.1.3 Lab: Explore an Access Database
- 9.1.4 Database vs. Spreadsheet
- 9.1.5 Add a Record
- 9.1.6 Lab: Add a Record
- 9.1.7 Working With a Database
- 9.1.8 Lab: Run a Report in a Database
- 9.1.9 Database Location and Access
- 9.1.10 Lesson Review

9.2 Types of Databases

- 9.2.1 Database Structure
- 9.2.2 Relational and Non-Relational Databases
- 9.2.3 Key-Value Databases
- 9.2.4 Document Databases
- 9.2.5 Lesson Review

9.3 Relational Databases

- 9.3.1 Schema in a Relational Database
- 9.3.2 Tables in a Relational Database
- 9.3.3 Primary and Foreign Keys
- 9.3.4 Lab: Ensure Valid Input
- 9.3.5 Lesson Review

9.4 Careers in Databases

9.5 Module Quiz

10.0 Coding

10.1 What is Coding?

- 10.1.1 Coding Overview
- 10.1.2 What is a Programming Language?
- 10.1.3 Compiled Languages
- 10.1.4 Interpreted Languages
- 10.1.5 Assembly Languages
- 10.1.6 Query Languages
- 10.1.7 Lesson Review

10.2 Planning a Coding Project

- 10.2.1 Define What the Program Should Do
- 10.2.2 Map Out the Program Sequence
- 10.2.3 Pseudocode
- 10.2.4 Lesson Review

10.3 Variables and Data Types

- 10.3.1 What is a Variable in Program Code?
- 10.3.2 Why Variable Types?
- 10.3.3 Number Types
- 10.3.4 Characters and Text
- 10.3.5 Encoding Characters
- 10.3.6 Booleans and Logic
- 10.3.7 Arrays
- 10.3.8 Lesson Review

10.4 Coding Principles

- 10.4.1 Simple Program Flow
- 10.4.2 Code Documentation
- 10.4.3 Branching
- 10.4.4 Code Visualizer Lab: If...Else Statement
- 10.4.5 Looping
- 10.4.6 Code Visualizer Lab: For Loop
- 10.4.7 Code Visualizer Lab: For Loop with Array
- 10.4.8 Code Visualizer Lab: While Loop
- 10.4.9 Functions
- 10.4.10 Code Visualizer Lab: Function
- 10.4.11 Object-Oriented Programming
- 10.4.12 Troubleshooting and Debugging
- 10.4.13 Lesson Review

10.5 Careers in Coding

10.6 Module Quiz

11.0 The Future of Tech

11.1 Leading Technologies

- 11.1.1 What is AI?
- 11.1.2 Using Generative AI
- 11.1.3 Quantum Computing
- 11.1.4 Storage
- 11.1.5 Automation
- 11.1.6 Robotics
- 11.1.7 Virtual Reality
- 11.1.8 Your Place in the Future of Tech
- 11.1.9 Lesson Review

A.0 CompTIA Tech+ FC0-U71 Exam Practice

A.1 Prepare for CompTIA Tech+ Certification

- A.1.1 Why Should I Take a Certification Exam?
- A.1.2 Exam Details for CompTIA Tech+ FC0-U71
- A.1.3 Exam Objectives for CompTIA Tech+ FC0-U71
- A.1.4 Course Mapping with CompTIA Tech+ FC0-U71 Objectives
- A.1.5 How to Take the Certification Exam
- A.1.6 Tips for Taking the Certification Exam

A.2 CompTIA Tech+ FC0-U71 Practice Exams

- A.2.1 Exam Practice 1: IT Concepts and Terminology
- A.2.2 Exam Practice 2: Infrastructure
- A.2.3 Exam Practice 3: Applications and Software
- A.2.4 Exam Practice 4: Software Development Concepts
- A.2.5 Exam Practice 5: Data and Database Fundamentals
- A.2.6 Exam Practice 6: Security
- A.2.7 Skills Practice: Competency in Technology Fundamentals
- A.2.8 Practice Test: CompTIA Tech+ FC0-U71