

# C O U R S E F E A T U R E S

## Computer Technology Specialist

*(5-day Instructor-Led Course)*



### Course Overview

The *CBP™ Computer Technology Specialist Certification* provides the business professional with working knowledge of the essential computer technology concepts required to survive in today's technological workplace. Computer technology is now fully integrated into most aspects of living and business, and, as such, the business professional must possess core knowledge of computing to excel. Almost every job has a core set of technology and business components that requires the professional to develop both information technology and business skills.

The *CBP™ Computer Technology Specialist Certification* covers a wide range of computer technologies such as computer architecture, software applications, networking, Internet technologies, electronic commerce, computer health and safety, computer security, and law.

### Who Should Attend

The course is recommended for anyone who works in a computerized environment.

### Prerequisites

**This course requires that students meet the following prerequisites:**

1. The candidate must have a commitment to the pursuit of excellence.
2. The candidate must have completed a high school or secondary school diploma or similar educational standards.
3. No prior computer experience is required.

### What You Will Accomplish

The CBP Technology Specialist student guide covers the following computer technology essentials:

- Introduction to Computers
- Computer Architecture
- Computer Storage Solutions
- Software Applications
- Networking Essentials
- Internet Technology and Concepts
- Electronic Commerce
- Computer Security Measures
- Computer Health and Safety Considerations
- Intellectual Property Rights

### Course Materials

Students will receive an official course manual for post-class reference and review.

### Certification Preparation

This module prepares candidates to sit the Certified Business Professional exam – **E40-709**

## Course Outline: CBP™ Computer Technology Specialist

### Module 1: Introduction to Computers

- The Computer
- Types of Computers
- PCs: Desktops, Laptops, Tablet PCs, iPads, and Handheld Computers
- Servers
- Mainframe Computers
- Centralized Computing
- Minicomputers

### Module 2: PC Architecture and Components

- PC Architecture
- Computer Case & Power Supply Unit
- System Board & Expansion Slots
- Central Processing Unit (CPU)
- Computer Memory
- Video Card
- BIOS Chip & CMOS Memory Chip
- The PC Boot Sequence

### Module 3: Computer Storage Systems

- Computer Storage Solutions
- Hard Drive Storage
- CD-ROM & CD Usage Guidelines
- CD-ROM/CD-RW Drive Speeds
- DVD-ROM Drives & Usage Guidelines
- High Definition Optical drives
- Tape Backup Drives
- USB Disk & Flash Storage
- Solid State drives & On-Line File Storage

### Module 4: Input/Output Devices

- Input Devices: The Keyboard, The Mouse, Pointing Devices
- Other Input Devices: Scanners, Digital Cameras & Microphones
- Output Devices: Monitors
- Printers: Dot-Matrix Printers, Inkjet & Bubble Jet Printers & Laser Printers, Multifunction, 3D
- Plotters & Speakers
- Connecting Input/ Output Devices: Serial, Parallel, Universal Serial Bus, SCSI & FireWire Connections

### Module 5: Computer Software

- Computer Software
- Types of Computer Software
- Operating Systems (OS): DOS, Microsoft Windows, UNIX, Linux & Macintosh
- Network Operating System (NOS): Microsoft Windows Server, UNIX & Linux
- Common Applications
- File Extensions
- Computer Performance

### Module 6: Networking Essentials

- Understanding Networks
- Networking Components
- Types of Networks
- Transmission Media: Cable Media & Wireless Media, and Bluetooth
- Media Access Protocols
- Network Connectivity Devices: Network Interface Cards (NIC), Modems, Repeaters, Hubs, Bridges, Switches, Routers & Gateways
- Network Protocols
- The Network Operating System (NOS)
- Network Services
- Peer-to-Peer Architecture
- Client/Server Architecture

### Module 7: Internet Technology and Concepts

- Understanding the Internet
- Internet History
- Internet Today
- The Internet Structure
- IP Addresses
- Domain Naming System (DNS)
- Intranets, Extranets & VPNs
- Connecting to the Internet: Dial-up Access, Cable Modems, Digital Subscriber Lines, Fiber Optics, & Wireless Access, Mobile Access
- Internet Services: WWW Services, FTP Services, Email Services, Internet Telephony & Internet Messaging, and Social Networking

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### Module 8: Electronic Commerce

- Electronic Commerce (E-Commerce)
- Traditional Commerce vs. E-Commerce
- E-Commerce Challenges: Internet Taxation, Security, Intellectual Property & Legitimacy
- Types of E-Commerce: Business-to-Business (B2B) E-Commerce, Business-to-Consumer (B2C) E-commerce & Online Auctions
- Setting Up an E-Commerce Solution
  - ⇒ Determining your Business Model
  - ⇒ Registering your Domain Name
  - ⇒ Hosting your Website
  - ⇒ Building your Website
  - ⇒ E-Commerce Enabling Your Website
  - ⇒ Marketing Your Website

### Module 9: Computer Security Measures

- Computer Security
- Methods of Attack: DoS's, Social Engineering, Brute Force, Spoofing, Spamming, Sniffers, Viruses & Theft
- Computer Security Measures: Administrative, Technology & Physical Measures
- Technology-based Measures: Biometrics Password, Access Control Lists (ACLs), Auditing & Firewalls
- Understanding Viruses
- Types of Viruses: MBR viruses, Macro Viruses, File Infector Viruses, Virus Hoaxes, Worms & Trojans
- Antivirus Software: The Antivirus Engine & Virus Definition Files
- Virus Protection Software
- Antivirus Guidelines
- Spyware
- Updating Software
- Encryption: Symmetric Encryption & Asymmetric Encryption
- Digital Signatures & Digital Certificates
- Backup Strategies: Full, Incremental & Differential Backups

### Module 10: Computer Health and Safety Considerations

- Computer Health & Safety Considerations
- Work-Related Musculoskeletal Disorders (WMSDs) & Prevention
- WMSD in the Computer Environment: Vision Problems, Tendonitis & Back Problems
- Carpal Tunnel Syndrome (CTS)
- Symptoms of CTS
- CTS Prevention & Treatment
- Stress Management
- Body Posture and Alignment
- Ergonomics in the Computer Environment
- Computer Workspace Layout
- Computer desks, Chairs & Footrest
- Computer Lighting
- The Monitor & Anti-glare strategies
- Additional Lighting
- Keyboard/ Mouse Trays
- Keyboard & Mouse Usage
- Electrical Safety: Surge Protector, Uninterruptible Power Supply (UPS) & Power Generators

### Module 11: Intellectual Property Rights

- Computers and the Law
- Intellectual Property
- Copyright
- Copyrighting Material
- Trademarks
- Patents
- Understanding Software Licensing