

Alabama CTE Equipment List

This list is based on a classroom size of 25 students and meets minimum standards. All costs are estimated. No specific equipment vendor or brand names are endorsed, but school districts should consult with stakeholders to ensure industry-recognized equipment and software are purchased. The intent of this list is to provide school districts with guidance on the equipment needed to cover the state standards for a Computer Science program and are not meant to dictate the number of students that can safely fit in a classroom and/or laboratory.

Cluster: Information Technology
Program: Computer Science

CLASSROOM EQUIPMENT

TOTAL: \$50,650

QUANTITY	ITEM DESCRIPTION	UNIT	TOTAL
25	Desktops Description: High-performance desktop with Intel Core i7 processor, 16GB RAM, 512GB SSD, and advanced security features.	\$1,200	\$30,000
25	Monitors Description: Full HD monitor with 1920x1080 resolution, IPS technology, and adjustable stand. Suitable for dual-monitor setups.	\$150	\$3,750
2	Servers Description: High-performance server with dual processors, extensive storage options, and robust security features. Essential for network and server management training. Usually provided by school district.		
3	Networking Equipment Switch Description: Managed network switch with 24 Gigabit Ethernet ports, advanced security, and QoS features. Essential for building a classroom network. Usually provided by school district.		
2	Firewall Description: Next-generation firewall with comprehensive security services, including VPN, intrusion prevention, and advanced threat protection. Usually provided by school district.		
2	Storage Devices NAS Description: Network-attached storage device with multiple bays, supporting RAID configurations, and advanced data protection features. Suitable for data backup and file sharing.	\$700	\$1,400
10	External Hard Drive (1TB) Description: Portable external hard drive with 1TB capacity, USB 3.0 connectivity, and backup software. Useful for storing and transferring large amounts of data.	\$60	\$600
2	Routers Description: High-speed router with 10 Gigabit LAN ports, 802.11ad Wi-Fi, and advanced security features. Usually provided by school district.		
50	Cat6 Ethernet Cables (100ft) Description: High-speed Ethernet cables for reliable network connections and data transfer.	\$20	\$1,000
25	Webcam	\$20	\$500
1	Network Color Laser Printer	\$400	\$400

	Description: High-performance monochrome laser printer with duplex printing, fast print speeds, and robust security features. May be an All-In-One device.		
25	Computer Workstation Desks Description: Computer stations, and/or adjustable computer tables with cable management capabilities and office compatible chairs. NOTE: Computer stations/tables should be in accessible proximity to networking switches and multiple outlets. One for each student based on the largest class enrollment.	\$500	\$12,500
1	Teacher Workstation/Desk w/chair	\$500	\$500

PROGRAM EQUIPMENT (Items over \$250)

TOTAL: \$13,475

QUANTITY	ITEM DESCRIPTION	UNIT	TOTAL
25	Visual Studio Professional Description: Integrated development environment (IDE) for building applications across various platforms. Educational cost is per year per user.	\$539	\$13,475

INSTRUCTIONAL SUPPLIES (Items under \$250)

TOTAL: \$10,725

QUANTITY	ITEM DESCRIPTION	UNIT	TOTAL
	Operating Systems, Security Software, Networking Software, Backup Software (Usually provided by school district)		
25	Development Tools JetBrains All Products Pack Description: Comprehensive suite of development tools including IntelliJ IDEA, PyCharm, and WebStorm. Educational cost is per year per user.	\$249	\$6,225
25	Raspberry Pi Kits Description: Affordable, small single-board computers for hands-on learning and experimentation in networking and security.	\$100	\$2,500
25	Arduino Starter Kits Description: Kits containing an Arduino microcontroller and various components for learning and prototyping.	\$80	\$2,000
25	Database Management MySQL Description: Open-source relational database management system.	\$0	\$0
25	Version Control Git Description: Distributed version control system for tracking changes in source code.	\$0	\$0
25	Cloud Services: Amazon Web Services (AWS) Educate Description: Cloud services platform offering computing power, database storage, and other functionality.	\$0	\$0
25	Microsoft Azure for Students Description: Cloud computing service for building, testing, and managing applications.	\$0	\$0

OPTIONAL EQUIPMENT/SUPPLIES

ITEM DESCRIPTION
<p>Presentation Equipment Description: Interactive whiteboard with software, accessories and collaboration features.</p>
<p>Monitors Description: Full HD monitor with 1920x1080 resolution, IPS technology, and adjustable stand. For dual-monitor setups.</p>
<p>Laptops (for instructors and mobility) Description: Business-class laptop with Intel Core i5 processor, 8GB RAM, and 256GB SSD.</p>
<p>Online Course Subscriptions (e.g., Coursera, Udemy) Description: Access to a wide range of online courses and training materials in cybersecurity and IT.</p>
<p>CompTIA A+ Certification Study Guides Description: Comprehensive study guides for CompTIA A+ certification.</p>

Category Totals:

Classroom Equipment	\$50,650
Program Equipment	\$13,475
Instructional Supplies	\$10,725
Estimated Program Total	\$74,850