

Alabama CTE Equipment List

This list is based on a classroom size of 24 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 an Engineering program and are not meant to dictate the number of students that can safely fit in a classroom and/or laboratory.

Cluster: STEM
Program: Engineering

CLASSROOM EQUIPMENT

TOTAL: \$25,400

QUANTITY	ITEM DESCRIPTION	UNIT	TOTAL
1	Computer Peripheral, LCD Projector	\$500	\$500
1	Computer Peripheral, Scanner/Copier/Printer (Combo)	\$500	\$500
2	Computer/ Lap Top Capable of Running Industry Standard Software	\$1,500	\$3,000
12	Computers w/ Monitors Capable of Running Industry Standard Software with Internet Connectivity	\$1,500	\$18,000
1	Eyewear Sterilization Cabinet	\$500	\$500
1	File Cabinet, Locking	\$500	\$500
1	First Aid Kit	\$100	\$100
1	Instructional Technology, Television (minimum 40")	\$500	\$500
1	Instructional Technology, Whiteboard	\$1,000	\$1,000
2	Storage, Lockable	\$400	\$800

PROGRAM EQUIPMENT (Items over \$250)

TOTAL: \$21,000

QUANTITY	ITEM DESCRIPTION	UNIT	TOTAL
1	Software, Industry Standard, Computer Aided Drafting (Installed on all Computer/Site License)	\$3,000	\$3,000
1	Software, Industry Standard, Computer Aided Machine (Installed on all Computer/Site License)	\$3,000	\$3,000
1	Software, Industry Standard, Desktop Publishing (Installed on all Computer/Site License)	\$3,000	\$3,000
1	Software, Industry Standard, Presentation (Installed on all Computer/Site License)	\$3,000	\$3,000
1	Software, Industry Standard, Word Processing (Installed on all Computer/Site License)	\$3,000	\$3,000
1	Stationary Power, 3D Printer	\$2,000	\$2,000
1	Stationary Power, Band Saw	\$1,000	\$1,000
1	Stationary Power, CNC Mill	\$2,000	\$2,000
1	Stationary Power, Drill Press	\$1,000	\$1,000

INSTRUCTIONAL SUPPLIES (Items under \$250)

TOTAL: \$3,480

QUANTITY	ITEM DESCRIPTION	UNIT	TOTAL
12	Drafting, Scales Architect, Engineer, Metric	\$10	\$120
12	Drafting, Tool Kit/Compass/Protractor/Board/T-Square	\$55	\$660
1	Portable Power, Belt Sander	\$200	\$200
1	Portable Power, Circular Saw	\$200	\$200
2	Portable Power, Drill	\$200	\$400
1	Portable Power, Jig/Scroll Saw	\$200	\$200
2	Portable Power, Palm Sander	\$200	\$400
1	Portable Power, Router	\$200	\$200
2	Precision Measurement, Calipers Vernier	\$30	\$60
2	Precision Measurement, Dial Indicator	\$45	\$90
2	Precision Measurement, Electronic, Digital Multimeter	\$50	\$100
1	Precision Measurement, Electronic, Gram Scales	\$50	\$50
2	Precision Measurement, Outside Micrometer	\$40	\$80
24	Safety, Hearing Protection	\$20	\$480
24	Safety, Safety Glasses	\$10	\$240

OPTIONAL EQUIPMENT

ITEM DESCRIPTION
Finishing, Spray Booth, Small Portable
Hand-tool, Knife, Hobby, Pencil type
Hand-tool, File, Rasp/Flat/Double Cut/Card (1 set of each)
Hand-tool, Metal Rule
Hand-tool, Tape Measure
Hand-tool, Hammer, Ball Peen
Hand-tool, Hammer, Claw
Hand-tool, Hammer, Soft Face
Hand-tool, Hex Wrench Set
Hand-tool, Knife, Utility
Hand-tool, Pliers, Diagonal Cutting
Hand-tool, Pliers, Groove Joint/Needle Nose
Hand-tool, Pliers, Lineman
Hand-tool, Rivet Tool
Hand-tool, Screwdriver Set
Hand-tool, Wire Stripper/Crimper
Hand-tool, Drill Bit, Metal/Wood/Spade/Counter Sink (1 set of each)
Hand-tool, Drivers, Nut, Set
Hand-tool, Socket Set, English/Metric
Hand-tool, Tin Snips, Right/Left/Straight (1 set of each)
Hand tool, Vice, Drill Press/Machinist/Pipe

Hand-tool, Bit Set, Router/Shaper/Panel
Hand-tool, Brush, Wire/Nylon/Natural Bristle
Hand-tool, Builders Level w/Rod & Tripod
Hand-tool, Chalk line
Hand-tool, Chipping Hammer
Hand-tool, Chisels, Cold/Wood
Hand-tool, Clamp, Bar/"C"/Spring/Hand Screw
Hand-tool, Drivers, Torx
Hand-tool, Feeler Gauge
Hand-tool, Gun, Heat/Stripping/Hot Glue
Hand-tool, Hammer, Sledge
Hand-tool, Level, Mason/Laser/Torpedo/Cabinet
Hand-tool, Mallet, Rubber/Wooden/Leather
Hand-tool, Marking Gauge
Hand-tool, Nail Sets
Hand-tool, Pipe Wrench/Reamer
Hand-tool, Plane, Hand/Block/Rabbit/Cabinet
Hand-tool, Pliers, Front Cut
Hand-tool, Pliers, Locking/Crimping/Slip Joint
Hand-tool, Propane Torch/Soldering Set
Hand-tool, Punch, Center/Drift/Peening
Hand-tool, PVC, Cutter/Reamer
Hand-tool, Saw, Rip/Crosscut/Dovetail/Miter/Hack
Hand-tool, Scissors
Hand-tool, Shovel, Round Point/Square Point/Post
Hand-tool, Shureform
Hand-tool, Soldering Iron/Heat Sinks
Hand-tool, Square, Framing/Speed/Tri/Combo
Hand-tool, Tap and Die Set
Hand-tool, Tongs
Hand-tool, Wheelbarrow/Cart/Wagon
Hand-tool, Wrench, Box/Combination/Torque
Instructional Technology, Camera Tripod
Instructional Technology, Computer Interactive Whiteboard
Instructional Technology, Digital Video Camera
Instructional Technology, GPS Handheld
Instructional Technology, Head Phones
Instructional Technology, Opaque Projector
Instructional Technology, Projection Screen
Instructional Technology, Wide Format Printer (24")
Lab equipment, Beaker
Lab equipment, Calorimeter

Lab equipment, Clay Modeling Table
Lab equipment, Compass
Lab equipment, Dynamometer
Lab equipment, Fan
Lab equipment, Graduated Cylinder
Lab equipment, Heat Pulser
Lab equipment, Hot Plate/Burner
Lab equipment, Hydrometer/Hygrometer
Lab equipment, Immersion Heater
Lab equipment, Microscope/Magnifying Lens
Lab equipment, Newton Spring Scale
Lab equipment, Physics Air Track and Accessories
Lab equipment, Prism/Mirror Set
Lab equipment, Pulley/Gear
Lab equipment, Signal Generator
Lab equipment, Solar Cell
Lab equipment, Spring Scale
Lab equipment, Spring Test Assembly
Lab equipment, Weight set and holders
Module, Alternative Energy Sources
Module, CO2 Dragsters/Transportation Modeling
Module, Desktop Publishing
Module, Electrical Systems/ Electronics
Module, Rocketry/Aerospace
Module, Structural Engineering
Module, 2D/3D Modeling
Module, Aerodynamics/Hydrodynamics
Module, Agriculture Technology
Module, Aquaculture/Hydroponics
Module, Architectural/Mechanical Drafting, Manual
Module, Artificial Intelligence
Module, Aviation/Air Transportation
Module, Biotechnology/Genetics/Biomedical
Module, Broadcasting/Communications
Module, CNC Pneumatics
Module, Computer Aided Drafting (CAD)
Module, Computer Aided Machining (CAM)
Module, Computer Aided Sign Making
Module, Computer Animation/Visualization
Module, Computer Applications/Software Applications
Module, Computer Construction/Repair
Module, Computer Networks

Module, Computer Numeric Control (CNC), Lathe/Mill
Module, Computer Problem Solving
Module, Construction Tech., Residential/Commercial
Module, Control Technology
Module, Conveyors & Sensors
Module, Digital Audio/Music
Module, Digital Design
Module, Digital Manufacturing
Module, Digital Photography/Video
Module, Drafting, Sketching/Instrument
Module, Electromagnetism/Magnetism
Module, Environmental Science
Module, Global Information Systems
Module, Global Positioning Systems
Module, Hydraulics
Module, Interactive Multimedia
Module, Internet Resources
Module, Landscape Design
Module, Lasers/Fiber Optics
Module, Machine Vision
Module, Manufacturing/Automation
Module, Materials and Processes
Module, Materials Properties/Testing
Module, Mechanisms/Mechanical Systems
Module, Medical Technologies
Module, Meteorology/Weather
Module, Microprocessors
Module, Multimedia Technologies
Module, Natural Resources
Module, Optics
Module, Physics
Module, Plant Science
Module, Plastics Technologies
Module, Pneumatics
Module, Power Mechanics/Small Engines
Module, Precision Measurement
Module, Process Control
Module, Programmable Logic Circuits
Module, Programming Theory
Module, Quality Control
Module, Radio/Audio Broadcasting/Communications
Module, Research and Design
Module, Residential Plumbing

Module, Residential Wiring
Module, Robotics
Module, Semiconductors
Module, Sensors
Module, Solar Energy
Module, Telecommunications
Module, Thermodynamics
Module, Transportation Systems
Module, Video Production/Editing
Module, Web Page Design
Module, Welding
Module, Wind Energy
Module, Writing & Research
Office, CD/DVD Storage case
Office, Desk, Student
Office, FAX Machine
Office, Photo Copier
Office, Stapler
Office, Tack Board
Office, Waste Basket
Portable Power Supply, AC/DC Low voltage
Portable Power, Air Compressor
Portable Power, Air hose
Portable Power, Air regulator
Portable Power, Angle Grinder
Portable Power, Finish Sander
Portable Power, Heat Strip
Portable Power, Miter Saw
Portable Power, Pipe Die Set
Portable Power, Pneumatic Finish Nail Gun
Portable Power, Pneumatic Framing Nail Gun
Portable Power, Wet/Dry Vacuum
Precision Measurement, Engineering transit with rod/tripod
Precision Measurement, Gauge blocks
Precision Measurement, Hardness Tester
Precision Measurement, Oscilloscope
Precision Measurement, Set (complete)
Precision Measurement, Thermometer
Safety, Face shield
Safety, Hard Hat
Safety, Ladder/Scaffolding
Sensor, Infrared
Sensor, Laser
Sensor, Magnetic
Sensor, Motion

Sensor, Photo/Light
Sensor, Pressure
Sensor, Proximity
Sensor, Sonic
Sensor, Thermal
Sensor, Vernier Force
Sensor, Weight/Strain
Software, Industry standard, Antivirus
Software, Industry standard, Computer Aided Drafting
Software, Industry standard, Computer Aided Machining
Software, Industry standard, Photo Editing
Software, Industry standard, Physics Logging
Stationary Power, CNC Lathe
Stationary Power, CNC Mill
Stationary Power, CNC Router
Stationary Power, Miter Saw
Stationary Power, Pedestal Grinder/Buffer
Stationary Power, Planer
Stationary Power, Radial-arm Saw
Stationary Power, Table Saw
Stationary, Box and Pan Brake
Stationary, Metal Shear
Storage, Flammable Storage Cabinet
Welding, Gloves/Jacket/Apron
Welding, Hood/Goggles/Safety Glasses
Welding, Metal Inert Gas Welder (MIG)
Welding, Resistance Electric Spot
Work Bench

Category Totals:

Classroom Equipment	\$25,400
Program Equipment	\$21,000
Instructional Supplies	\$3,480
Estimated Program Total	\$49,880