## 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 Flight Technology program and are not meant to dictate the number of students that can safely fit in a classroom and/or laboratory.

Cluster: Transportation, Distribution and Logistics
Program: Flight Technology

CLASSROOM EQUIPMENT

| QUANTITY | ITEM DESCRIPTION | UNIT | TOTAL |
| :---: | :--- | :--- | :--- |
| 5 | Computer/Device with Current Operating System | $\$ 1,000$ | $\$ 5,000$ |
| 1 | Copy Machine, own or have accessibility to use | $\$ 500$ | $\$ 500$ |
| 3 | File Cabinets | $\$ 100$ | $\$ 300$ |
| 1 | Industry related (simulation) software package | $\$ 2,500$ | $\$ 2,500$ |
| 1 | Laser Printer, color | $\$ 300$ | $\$ 300$ |
| 1 | Scanner | $\$ 600$ | $\$ 600$ |
| 1 | Technology- LCD projector or TV/Computer connection <br> and/or overhead projector with video streaming <br> capability | $\$ 2,500$ | $\$ 2,500$ |

TOTAL: \$53,900

| QUANTITY | ITEM DESCRIPTION | UNIT | TOTAL |
| :---: | :--- | :--- | :--- |
| 1 | Air Compressor/Hose Kit | $\$ 1,200$ | $\$ 1,200$ |
| 1 | Chart, Map, and Flight Planning Resource | $\$ 1,000$ | $\$ 1,000$ |
| 1 | Cockpit Instrument Trainer | $\$ 3,200$ | $\$ 3,200$ |
| 2 | Flight Simulators | $\$ 10,000$ | $\$ 20,000$ |
| 1 | Hydraulic Landing Gear System Trainer | $\$ 3,500$ | $\$ 3,500$ |
| 2 | Rudder Simulators | $\$ 10,000$ | $\$ 20,000$ |
| 5 | Simulator Packages (Add-on for Computer Simulators <br> including Software, Rudders, Throttles, etc.) | $\$ 1,000$ | $\$ 5,000$ |

INSTRUCTIONAL SUPPLIES (Items under \$250)
TOTAL: \$27,225

| QUANTITY | ITEM DESCRIPTION | UNIT | TOTAL |
| :---: | :--- | :--- | :--- |
| 3 | $2^{\prime}$ Level | $\$ 10$ | $\$ 30$ |
| 2 | $4^{\prime}$ Level | $\$ 20$ | $\$ 40$ |
| 8 | Adjustable Pipe Stand | $\$ 40$ | $\$ 320$ |
| 6 | Adjustable Wrench (8", 10" and 12") | $\$ 40$ | $\$ 240$ |
| 5 | Air Chisel Set (Various Types) | $\$ 70$ | $\$ 350$ |
| 1 | Air Gun | $\$ 25$ | $\$ 25$ |


| 1 | Air Hose ( $3 / 4 \times 50$ ) | \$60 | 60 |
| :---: | :---: | :---: | :---: |
| 2 | Air Hose ( $3 / 8 \times 50^{\prime}$ ) | \$50 | \$100 |
| 2 | Air Pressure Regulator | \$20 | \$40 |
| 2 | Air Ratchet (3/8" Drive) | \$45 | \$90 |
| 1 | Air Wrench (3/8" Drive) | \$100 | \$100 |
| 2 | Aligning Dogs | \$60 | \$120 |
| 5 | Allen Wrench/Hex Key Set | \$15 | \$75 |
| 15 | Architect and Engineer Scale | \$10 | \$150 |
| 5 | Assorted Flight Simulator Software | \$200 | \$1,000 |
| 2 | Auger Drill Bit Set | \$75 | \$150 |
| 3 | Aviation Snip (Right, Left, and Straight) | \$50 | \$150 |
| 6 | Back Support Belt | \$20 | \$120 |
| 7 | Ball Peen Hammer (10 oz.) | \$15 | \$105 |
| 7 | Ball Peen Hammer (20 oz.) | \$20 | \$140 |
| 2 | Basin Wrench | \$25 | \$50 |
| 1 | Belt Tension Gauge | \$40 | \$40 |
| 7 | Bench Vise | \$30 | \$210 |
| 6 | Bitt Brace | \$20 | \$120 |
| 1 | Bloodborne Pathogen Kit | \$50 | \$50 |
| 1 | Bolt-type Mechanical Plug ( $11 / 4 \prime-3^{\prime \prime}$ ) | \$25 | \$25 |
| 1 | Box End Wrench Set | \$50 | \$50 |
| 5 | Boxes of 8.5" $\times 11^{\prime \prime}$ Paper | \$40 | \$200 |
| 7 | Brazing Goggles (Shade \#5) | \$20 | \$140 |
| 3 | Brazing Torch (Assorted Sizes) | \$75 | \$225 |
| 5 | Brooms | \$10 | \$50 |
| 2 | Caulking Iron (Assorted Sizes) | \$50 | \$100 |
| 7 | C-Clamp (Assorted Sizes) | \$50 | \$350 |
| 2 | Center Finder | \$40 | \$80 |
| 6 | Center Punch | \$10 | \$60 |
| 1 | Chaim Come-along | \$150 | \$150 |
| 3 | Chain Vise | \$40 | \$120 |
| 5 | Chain Wrench | \$20 | \$100 |
| 3 | Chalk Box | \$10 | \$30 |
| 3 | Channel Lock Pliers | \$15 | \$45 |
| 2 | Circular Saw | \$75 | \$150 |
| 7 | Claw Hammer | \$20 | \$140 |
| 1 | Cleaning/Chemical Cabinet, locked | \$250 | \$250 |
| 2 | Closet Auger | \$30 | \$60 |
| 1 | Cold Chisels (Assorted Sizes) | \$40 | \$40 |
| 3 | Combination Square | \$15 | \$45 |
| 15 | Compass | \$10 | \$150 |
| 1 | Compound Leverage Wrench | \$25 | \$25 |
| 4 | Crow/Ripping Bar | \$15 | \$60 |
| 2 | Cylinder Cart | \$100 | \$200 |
| 4 | Drawer Cabinet (with Casters) | \$200 | \$800 |
| 2 | Drift Pins | \$5 | \$10 |


| 2 | Drill (1/2" Variable Speed, Reversible) | \$100 | \$200 |
| :---: | :---: | :---: | :---: |
| 2 | Drill (3/8" Variable Speed, Reversible) | \$75 | \$150 |
| 1 | Drop Light | \$25 | \$25 |
| 1 | Dry Wall Screw-gun | \$150 | \$150 |
| 2 | Dust Pans | \$10 | \$20 |
| 5 | E6B Metal Flight Computer and Plotter | \$100 | \$500 |
| 200 | Ear Plugs | \$50 | \$100 |
| 10 | Earmuffs | \$20 | \$200 |
| 2 | Elbow Welding Clamp | \$50 | \$100 |
| 7 | Electric Angle Grinder (41/2") | \$75 | \$525 |
| 2 | Electric Angle Grinder (8") | \$150 | \$300 |
| 2 | Electric Drill Variable/Reverse (3/8") | \$40 | \$80 |
| 2 | Electric Drum-type Drain Cleaner | \$30 | \$60 |
| 1 | Electric Hammer-type Drill (1/2") | \$150 | \$150 |
| 2 | Electric Reverse/Reverse Drill (1/2") | \$75 | \$150 |
| 1 | End Grinder | \$150 | \$150 |
| 3 | Extension Cords | \$50 | \$150 |
| 1 | Extension Handle | \$20 | \$20 |
| 1 | Extension Ladder | \$250 | \$250 |
| 3 | Eye Protection (Pack of 12) | \$15 | \$45 |
| 2 | Eye Rinse Stations | \$115 | \$230 |
| 7 | Face Shield | \$10 | \$70 |
| 1 | Fiberglass Utility Probe | \$20 | \$20 |
| 3 | Files (Cards) | \$30 | \$90 |
| 4 | Files (Coarse: 12") | \$20 | \$80 |
| 4 | Files (Coarse: 6") | \$20 | \$80 |
| 4 | Files (Half Round: 12") | \$20 | \$80 |
| 3 | Files (Round: 12") | \$20 | \$60 |
| 3 | Files (Round: 6") | \$20 | \$60 |
| 3 | Fire Blankets (with Case) | \$100 | \$100 |
| 1 | Fire Extinguisher (ABCK) | \$270 | \$270 |
| 1 per room | First Aid Kit | \$20 | \$20 |
| 3 | Flammable Material Storage Locker | \$200 | \$600 |
| 2 | Flashlight | \$20 | \$40 |
| 2 | Flex Handle-Breaker Bar | \$15 | \$30 |
| 2 | Floor Squeegee | \$20 | \$40 |
| 2 | Garbage Can (with Casters) | \$75 | \$150 |
| 4 | GFCI 14 Gauge Extension Cord (50') | \$75 | \$300 |
| As needed | Gloves, disposable | \$15 | \$15 |
| 4 | Grinder (Electric) | \$70 | \$280 |
| 1 | Hand-held Vacuum Pump | \$180 | \$180 |
| 10 | Hard Hat | \$50 | \$500 |
| 10 | Hard Hat Mount Earmuff (21 decibels) | \$40 | \$400 |
| 1 | Hazardous Skill Response Kit | \$50 | \$50 |
| 30 | Heavy Duty Work Gloves (S-M-L) | \$20 | \$600 |
| 1 | Hole-Hawg Drill (1/2") | \$150 | \$150 |


| 1 | Impact Wrench (3/8" Drive) | \$220 | \$220 |
| :---: | :---: | :---: | :---: |
| 5 | Micrometer (0-1", 1-2", 2-3", 3-4", and 4-5") | \$110 | \$550 |
| 5 | Micrometer (Depth) | \$220 | \$1,100 |
| 2 | Mop | \$20 | \$40 |
| 1 | Mop Bucket | \$50 | \$50 |
| 5 | Multi-tool Set | \$25 | \$125 |
| 1 | OSHA "Right to Know" Compliance Kit | \$100 | \$100 |
| 5 | Pliers (Adjustable Joint) | \$30 | \$150 |
| 5 | Pliers (Combination-6") | \$10 | \$50 |
| 5 | Pliers (Electrical Crimpers) | \$40 | \$200 |
| 5 | Pliers (Hose Clamp) | \$45 | \$225 |
| 5 | Pliers (Locking Jaw) | \$20 | \$100 |
| 5 | Pliers (Needle Nose-6") | \$15 | \$75 |
| 5 | Pliers (Side Cutting) | \$10 | \$50 |
| 5 | Pliers (Slip Joint-Water Pump) | \$25 | \$125 |
| 5 | Pliers (Snap Ring-External) | \$20 | \$100 |
| 5 | Pliers (Snap Ring-Internal) | \$20 | \$100 |
| 5 | Pliers (Wheel Weight) | \$25 | \$125 |
| 5 | Pliers (Wire Stripper) | \$20 | \$100 |
| 1 | Pneumatic Angle Grinder ( $41 / 2^{\prime \prime}$ ) | \$150 | \$150 |
| 1 | Portable Chop Saw | \$80 | \$80 |
| 2 | Protective Facial Shield | \$25 | \$250 |
| 1 | Right Angle Drill (1/2") | \$150 | \$150 |
| 2 | Rivet Gun (Pop) | \$50 | \$100 |
| 10 | Rivet Guns (Pneumatic) | \$100 | \$1,000 |
| 20 | Rivet Set (Pneumatic Assorted Sizes) | \$15 | \$300 |
| 4 | Safety Can (Solvents, Rags, etc.) | \$100 | \$400 |
| 5 | Screwdriver (12" - \#3) | \$15 | \$75 |
| 5 | Screwdriver ( $6^{\prime \prime}$ - \#1) | \$15 | \$75 |
| 5 | Screwdriver (6" - \#2) | \$15 | \$75 |
| 5 | Screwdriver (Blade Type: $\mathbf{6}^{\prime \prime}$, 9", and 12") | \$15 | \$75 |
| 5 | Screwdriver Kit (Phillips) | \$20 | \$100 |
| 5 | Snips-Aviation Sheet Metal (L/H) Offset | \$20 | \$100 |
| 5 | Snips-Aviation Sheet Metal (R/H) Offset | \$20 | \$100 |
| 5 | Snips-Aviation Sheet Metal (Straight) Offset | \$20 | \$100 |
| 5 | Socket Set (1/2" Drive) | \$50 | \$250 |
| 5 | Socket Set (1/4" Drive) | \$50 | \$250 |
| 5 | Socket Set (3/8" Drive) | \$50 | \$250 |
| 5 | Socket Set (6-point: 3/8" - 3/4") | \$50 | \$250 |
| 5 | Socket Set (6-point: Standard Depth-5/16" - $3 / 4^{\prime \prime}$ ) | \$50 | \$250 |
| 5 | Socket Set (Deep: $1 / 4 \prime$ - $1 / 2$ ' ${ }^{\text {) }}$ | \$50 | \$250 |
| 5 | Socket Set (Deep: 10mm - 24mm) | \$50 | \$250 |
| 5 | Socket Set (Deep: 6mm-12mm) | \$50 | \$250 |
| 5 | Socket Set (Deep: 7/16" $-11 / 8^{\prime \prime}$ ) | \$50 | \$250 |
| 5 | Socket Set (Extensions: 3", 5", 6", 10", and 12") | \$25 | \$125 |
| 5 | Socket Set (Flex/Universal Type) | \$30 | \$150 |


| 5 | Socket Set (Standard Depth: $10 \mathrm{~mm}-24 \mathrm{~mm}$ ) | $\$ 50$ | $\$ 250$ |
| :---: | :--- | :--- | :--- |
| 5 | Socket Set (Standard Depth: $6 \mathrm{~mm}-12 \mathrm{~mm})$ | $\$ 50$ | $\$ 250$ |
| 5 | Socket Set (Standard Depth: $\left.7 / 16^{\prime \prime}-11 / 8^{\prime \prime}\right)$ | $\$ 50$ | $\$ 250$ |
| 2 | Speed Handle | $\$ 30$ | $\$ 60$ |
| 1 | Table-mounted Chop Saw | $\$ 80$ | $\$ 80$ |
| 2 | Tape Measurer (Standard or Metric) | $\$ 25$ | $\$ 50$ |
| 5 | Telescope Gauge Set | $\$ 30$ | $\$ 150$ |
| 3 | Torque Wrench (1/2" Drive $-50-250 \mathrm{lb} . \mathrm{ft}$.) | $\$ 60$ | $\$ 180$ |
| 3 | Torque Wrench (3/8" Drive: $10-250 \mathrm{lb} . \mathrm{in})$. | $\$ 60$ | $\$ 180$ |
| 3 | Torque Wrench (3/8" Drive: $5-75 \mathrm{lb}$. ft.) | $\$ 25$ | $\$ 75$ |
| 5 | Tubing Benders | $\$ 75$ | $\$ 375$ |
| 5 | Tubing Cutter/Flaring Set (Double-lap and ISO) | $\$ 40$ | $\$ 200$ |
| 100 | Uncorded Ear Plugs | $\$ 15$ | $\$ 15$ |
| 5 | Universal Joint | $\$ 50$ | $\$ 250$ |
| 5 | Wire Brush | $\$ 10$ | $\$ 50$ |
| 2 | Wrench Kit (Pipe) | $\$ 50$ | $\$ 100$ |
| 3 | Wrenches (Crescent: $8^{\prime \prime}, 10^{\prime \prime}$ and $12^{\prime \prime}$ ) | $\$ 30$ | $\$ 90$ |

## OPTIONAL EQUIPMENT/SUPPLIES

| ITEM DESCRIPTION |
| :--- |
| Flight/Landing Simulator |

## Category Totals:

| Classroom Equipment | $\$ 11,700$ |
| :--- | :--- |
| Program Equipment | $\$ 53,900$ |
| Instructional Supplies | $\$ 27,225$ |
| ated Program Total | $\$ \mathbf{\$ 2 , 8 2 5}$ |

