

Career Pathways for Tech High School
Recommended courses for the Engineering, Manufacturing and Technology Career Cluster

Do you like to:

- Work in math and physical science areas?
- Use problem-solving skills and use of logic?
- Use oral and Dissect smaller pieces from the big picture?
Work with critical details?

Engineering, Manufacturing and Technologies:

People attracted to careers in this pathway like to work with things. They like to work with their hands with objects, machines, and tools. This career path includes programs related to the technologies necessary to design, develop, install, or maintain physical systems. These may include engineering and related technologies, mechanics, and repair, manufacturing technology, precision production, electronics, and construction.

GRADES

	9	10	11	12
Language Arts	2 Semesters Language Arts 9	2 Semesters Language Arts 10	2 Semesters 1 Composition 1 Literature	2 Semesters 1 Speech 1 Elective
Mathematics	2 Semesters Math	2 Semesters	2 Semesters Choose	
Science	2 Semesters Earth/Space 9	2 Semesters Biology	2 Semesters Choose	
Social Studies	2 Semesters Geography 9	1 Semester World History	2 Semesters U.S. History	2 Semesters 1 Semester Economics 1 Semester Global
Fitness/Health	2 Semesters Fitness for Life	1 Semester Fitness for life 1 Semester Health		
Art	1 Semester (Elective #1)	1 Semester		
Foreign Language	1 Semester (Elective #2)	1 Semester (Elective 1)		
Industrial Tech	-Communication Technology A/B -Drafting -Electricity/Robotics -Power and Energy -Welding -Woodworking	-Architectural Drafting A/B -Automotives -Advanced Automotives A++ -Advanced Automotives B++ -Communication Technology A/B -Construction Technology A/B -Digital Photography A/B -Drafting -Electricity/Robotics -Power and Energy -Video Productions A/B -Welding -Advanced Welding A++ -Advanced Welding B++ -Woodworking -Advanced Woodworking A/B++	-Architectural Drafting A/B -Automotives -Advanced Automotives A++ -Advanced Automotives B++ -Advanced Automotives B++ -Communication Technology A/B -Construction Technology A/B -Digital Photography A/B -Drafting -Electricity/Robotics -Power and Energy -Video Productions A/B -Welding -Advanced Welding A++ -Advanced Welding B++ -Woodworking -Advanced Woodworking A/B++ -Brakes Discovery Academy -CISCO Routing I/ IT Essentials- Discovery Academy -CISCO Routing II/ Introduction to HTML-Discovery Academy -Digital Electronics-Discovery Academy	-Architectural Drafting A/B -Automotives -Advanced Automotives A++ -Advanced Automotives B++ -Advanced Automotives B++ -Communication Technology A/B -Construction Technology A/B -Digital Photography A/B -Drafting -Electricity/Robotics -Power and Energy -Video Productions A/B -Welding -Advanced Welding A++ -Advanced Welding B++ -Woodworking -Advanced Woodworking A/B++ -Brakes Discovery Academy -CISCO Routing I/ IT Essentials- Discovery Academy -CISCO Routing II/Introduction to HTML-Discovery Academy -Digital Electronics-Discovery Academy

Required Courses
Suggested Courses

** AP Course
 ++ SCTC Tech Prep Course
 ## SRS Course

Potential Careers in the Engineering, Manufacturing and Technology Career Pathway

HS Diploma (some additional training may be necessary)		Technical Training or 2-year Degree		4-year Degree and Beyond	
Airline Grounds Crew Worker Ambulance Driver (Minimum)	Precision Welder Production and Planning Clerks	Airplane Assembler Airplane Mechanic	Machinist Mathematical Technicians	Aerospace Engineers Agricultural Engineers	Ship Pilots Social Science Research Assistant-^
Assistant Drafter Bicycle Repairers	Production Helpers Pulp and Paper Workers	Airplane Pilot (minimum) Auto Body Repairers*	Mechanic/Technician Medical Appliance Technician	Air Traffic Controller Aircraft Mechanics-	Software Developer- Statistician-
Blue Collar Worker Supervisor Brick Layers and Stone Masons	Pump Operators Quality Control Inspectors	Auto Body Technician* Auto Glass Installers	Medical Equipment Repairer Medical Laboratory Technologist+	Airport Engineer Anthropologists-	Stress Analyst Structural Engineer
Building Maintenance Worker Bus Drivers	Railroad Brake, Signal and Switch Operators Riggers	Automatic Teller Machine Services Automobile Mechanics*	Millwrights*	Archeologists Architects	Surveyor Supervisor Systems Analyst
Camera and Photographic Equipment Repairers (minimum) Carpenter	Roofers (minimum) Roustabouts	Automotive* Boilermakers	Motor Boat Mechanics Motorcycle Mechanics	Archivists Astronomers	Systems Engineer Traffic Technicians
Clothes Pressers Concrete Mason	School Bus Driver Septic Tank Servicers and Sewer Pipe Cleaners	Bus Mechanics Truck Mechanics*	Musical Instrument Tuners and Repairers Numerical Control Machine Operators	Biologists-^ Biomedical Engineer-	Transportation Inspectors Welding Engineer
Construction and Well Drillers (minimum) Construction Helper	Subway and Street Car Operators Taxi Drivers and Chauffeurs	Cabinet Makers* Calibration	Numerical Control Tool Programmers Office Machine Repairers	Buyers and Purchasing Agents Cartographers & Photogrammetrists	
Construction Worker Court Clerks	Textile Machine Operators Tire Building Machine Operators	Carpenters* Cement Masons	Operating Engineers and Construction Equipment Operators Page Layout Workers	Chemical Engineers- Chemists-^	
Crane Operator Deck Hands	Tire Repairers and Changers (minimum) Title Setters (Minimum)	Chemical Equipment Operators Chemical Plant Operators	Painters Pipe Fitters	Civil Engineer- Computer Programmer-^	
Die Designer Apprentice Dispatchers	Tool and Die Apprentice Truck Driver	Coin and Vending Machine Repairers Commercial Drivers	Plasterers Plumber*	Computer System Administrator-^ Construction Managers	
Electrician Apprentice Explosive Workers (minimum)	Vehicle Cleaners Wallpaper Hangers (minimum)	Communications Equipment Mechanics Computer Equipment Repairers	Potters Power Plant Operators	Construction Site Supervisor Cost Estimators	
Fence Builders Flight Attendants (Minimum)		Construction and Building Inspectors Crane & Tower Operators	Precision Assemblers Refrigeration Technician*	Electrical Engineer- Electronic Engineer	
Forklift Operators Freight Handlers		Dental Laboratory Technicians* Drafters (minimum)*	Research Electrician Sawing Machine Operators	Energy Systems Designer Engineering Manager-	
Furniture Finishers Gas and Oil Plant Operators		Drywall Finishers Drywall Installers	Science Technicians Semiconductor Processing Operators	Environmental Engineer Environmental Scientist-	
General Construction Workers		Electric Motor Repairers*	Sewing Machine Operators Sheet Metal Workers	Food Scientist	
Hazardous Material Workers Highway Maintenance Workers		Electricians* Electronic Equipment Repairer*	Shoe and Leather Workers Stationary Engineers	Geologist and Geophysicist- Historian-^	
Insulation Installers Ironworker		Electronics Engineering* Elevator Installers and Repairers	Small Engine Mechanics Social Science Research Assistant+	Industrial Designer Industrial Engineer	
Lather Licensed Clerks (minimum)		Engineering Technicians Farm Equipment Mechanics	Storage and Transportation Managers (Minimum) Structural Metal Workers	Mapping Scientist Marine Biologist	
Light Truck Drivers (minimum) Locomotive Engineers		Fire-Protection Engineering Floor and Carpet Layers	Surveying and Mapping Technicians* Surveyors*	Material Machine Operators Material Moving Machine Operators	
Log Graders and Scalars (Minimum) Machinist Apprentice		Floor Sanding Machine Operator Glass Blowers	Tailors Tank Car, Truck and Ship Loaders	Materials Engineer Mathematician-^	
Mail Carriers Mechanic and Repair Helpers		Heating and Cooling System Mechanics* Heavy Equipment Mechanics*	Technical Illustrator+ Technician	Mechanical Engineer- Medical Laboratory Technologist-	
Mechanic and Repairer Operators (minimum) Medical Equipment Preparers (minimum)		Heavy Truck Drivers* Hoist and Winch Operators	Tool and Die Makers* Tool Grinders*	Medical Scientist Metallurgist	
Metal and Plastic Processing Workers Meter Readers		Home Electronic Repairers Hydraulic Repairer	Tool Programmer* Train Conductors and Yardmasters	Meteorologist- Natural Sciences Manager	
Packaging and Filling Machine Operators Packers and Packagers		Industrial Electronic Repairers* Industrial Machinery Mechanics*	Transportation Agents (Minimum) Upholsterers	Nuclear Engineer Petroleum Engineer	
Painting and Coating Machine Operators Paving Equipment Operators		Instrumentation Technician* Jeweler	Vehicle Painters* Watch Repairers	Photogrammetric Engineer Physicist-^	
Pharmacy Aides Photograph Processing Workers		Land Surveyor* Laser Technician	Web-Page Programmer*+ Welders and Solderers*	Political Scientist-^ Quality Control Manager	
Pipe Layers Plumbing Apprentice		Lens Grinders and Polishers Line Installers and Repairers	Welding and Soldering Machine Operators*	Safety Engineer Ship Captains and Mates	
Postal Clerks Postmasters and Mail Superintendents (minimum)		Locksmith Loggers		Ship Engineer Sociologist-^	