Penn Foster

SKILLED TRADES BUNDLE OVERVIEW

Our 36 bundles are offered across six distinct categories

Fundamental Skills

- Basic Blueprint Reading
- Basic Business Literacy
- Basic Business Math
- Basic Skills Package
- Industrial Safety
- Pre-apprentice Training
- Warehousing and Distribution

Engineering Technology & Advanced Programs

- Chemical Engineering Technology
- Civil Engineering Technology
- Drafting and Design
- Electrical Engineering Technology
- Industrial Engineering Technology
- Mechanical Engineering Technology
- Supervisor Training

Construction & Industrial Maintenance

- Carpenter Training
- Construction Technician Training
- Facilities Maintenance Mechanic Training
- Industrial Painting
- Mechanical & Electrical Technician Training
- Millwright Training

Electrical

- Basic Electrical Training
- Electric & Telecom Lineman Training
- Electric Maintenance Skills
- Electrical Maintenance Technician Training
- Electrician Training
- Electronics Maintenance Training

PHC Trades

- HVAC Technician Training
- Pipefitter Training
- Plumber Training

Manufacturing

- Machinist Training
- Machine Operator Training
- Production Worker Training
- Quality Control
- Tool & Die Maker Training
- Welder Training
- Welder Helper Training

Fundamental Skills: Bundles and Descriptions

Bundle	Description	# of Modules	# of Hours	Skills applicable for following occupations:
Basic Blueprint Reading	The Basic Blueprint Reading programs teaches learners the basics behind how to read blueprints. Key concepts taught in this program include print reading, understanding drawings and schematics, and geometric dimensioning and tolerancing.	19	124	Applicable to a broad range of occupations
Basic Business Literacy	The Basic Business Literacy program covers the core concepts behind business communication and technical writing. The program teaches report writing, proposal writing, and research skills while improving the overall writing quality of the student.	18	165	Applicable to a broad range of occupations
Basic Business Math	The Basic Business Math program covers the principles of business and industrial math, from basic operations through algebra. Upon finishing the program students will understand key concepts including practical measurements, bulk measurement, and fluid measurement.	28	147	Applicable to a broad range of occupations
Basic Skills Package	The Basic Skills Package program offers the basic math, writing, blueprint reading, and safety programs together as a package. By combining these essential programs, the package covers all the basic skills needed by entry-level workers or workers looking to upgrade their formal skills on the path to supervisor status.	74	476	Applicable to a broad range of occupations
Industrial Safety	The Industrial Safety program teaches students how to work safely in a variety of different functions. Workers are taught safety skills for chemical, fire, electrical and several other environments.	9	40	Applicable to a broad range of occupations
Pre-apprentice Training	The Pre-Apprentice Training program teaches the key skills workers need to enter an apprentice program across a variety of skilled trades. The program is designed to prepare the learner for the technical elements of an apprenticeship, teaching key skills including industrial math, print reading, and trade-related preparation such as measurement and dimensioning & tolerancing.	15	107	Broad range of pre-apprentice tracks
Warehousing and Distribution	The Warehousing and Distribution program teaches the fundamentals skills needed by a warehouse worker. Students are taught basic math, safety, and print reading skills in addition to the concepts specific to material handling and warehousing. The program will help warehouse workers become maximally effective and able to safely perform their responsibilities.	42	297	Loader, material handler, warehouse worker, picker/packer, receiver, warehouse clerk, stockroom clerk, stocker

Engineering Technology & Advanced Programs: Bundles and Descriptions

Bundle	Description	# of Modules	# of Hours	Skills applicable for following occupations:
Chemical Engineering Technology	The Chemical Engineering Technology program is a full two-year program designed to teach employees key chemical engineering skills. Beginning with basic math, algebra, and geometry, the program moves into core chemical engineering training on organic and inorganic chemistry, chemical topics, heat topics, thermodynamics and metallurgy. The program also includes training on quantitative and qualitative analysis as well as chemical engineering-specific topics such as distillation and solvent extraction. Lastly, students finish the program focused on supervisory topics including writing, time study, data logging and the economy.	163	1524	Chemical Engineer
Civil Engineering Technology	The Civil Engineering program is a full two-year program designed to train workers key civil engineering skills. Beginning with basic math, algebra, geometry and trigonometry, the program moves into core civil engineering topics such as surveying, drawing, mapping, and photogrammetry. Additional topics taught include highways and cement and the basics of heat, electricity, streel and building construction. Lastly, students are taught civil engineering courses on water purification, sewerage, and more.	153	1731	Civil Engineer
Drafting and Design	The Drafting and Design program teaches trainees the key skills needed as a draftsman. Beginning with the fundamentals of math, measurement, prints, physics, and mechanics, the program then moves into advanced lessons on geometrical, projection, and elementary and advanced drawing. This program covers the core drafting topics needed before progressing to computer design; however, it does briefly introduce CAD training (Computer-Aided Drafting and Design).	48	1425	Draftsman, CAD Designer, CAD Operator, Drafter
Electrical Engineering Technology	The Electrical Engineering Technology program is a full two-year program designed to teach workers key electrical engineering skills. Beginning with basic math, algebra, and logarithms, the program then moves into teaching core electrical and magnetism concepts, both theoretical and practical. These initial topics include currents, transformers, batteries, and alternators before moving into advanced topics like PLCs, electronic systems, and semiconductors. In the electrical engineering training program, students will also gain knowledge on different types of circuits and logic devices, motor control and mechanics, and a variety of specific control-related topics. Lastly, they will complete the program with an understanding of how to troubleshoot electrical systems and devices.	240	1565	Electrical Engineer
Industrial Engineering Technology	The Industrial Engineering Technology program is a full two-year program designed to teach workers key industrial engineering skills. Beginning with basic math, algebra, and safety instruction, the program then moves into extensive mechanics topics, supervisory topics such as operation analysis and report writing, and key electrical concepts. Additional subjects covered include troubleshooting topics, control systems, microprocessors, fluid and hydraulic power topics, and industrial components such as compressors and pumps. Upon completion of the industrial engineering training, students will have a well-rounded background in electrical, maintenance, and other industrial topics.	180	1501	Industrial Engineer
Mechanical Engineering Technology	The Mechanical Engineering Technology program is a full two-year program designed to teach workers key mechanical engineering skills. Beginning with basic math, algebra, and trigonometry, the program then moves into teaching the different types of engineering and fluid mechanics. Additionally, the program focuses on safety topics, fluid and hydraulic power topics, and industrial components such as compressors and pumps. In the final section of the mechanical engineering training, students learn how to maintain these systems, read their instruments, and handle process contol. The program also offers several topics for those seeking to move into a supervisory role, like time study and effective writing.	134	1167	Mechanical Engineer
Supervisor Training	The Supervisor Training program covers the key concepts and skills workers need to progress to a supervisory level in any industrial, manufacturing, or skilled trades environment. In the program, students learn safety and maintenance supervisor concepts in addition to key writing skills, time study skills, and an overview of quality control concepts. Lastly, the supervisor training program teaches key supervision-specific skills such as planning and organization, motivation, employee relations, and cost control.	31	295	Supervisor, Maintenance Supervisor, Manufacturing Supervisor

Construction & Industrial Maintenance: Bundles and Descriptions

Bundle	Description	# of Modules	# of Hours	Skills applicable for following occupations:
Carpenter Training	The Carpenter skills training program is designed to train those with no prior experience on key carpentry skills. Beginning with basic math and hand tools training, the program moves into several topics on prints, drawings, and GD&T. In the carpenter training program, students will study carpentry materials and their properties as well as specific topics such as roofing, stair building, and millwork.	81	646	Carpenter
Construction Technician Training	The Construction Technician training program will prepare trainees with the well-rounded skillset they need to work in the construction industry. This construction training program teaches a wide array of topics to prepare workers for different fields in the construction industry and to enable graduates to contribute on a variety of projects. Beginning with basic math, tools, prints and drawings, this program covers the different types of engineering materials - metal, wood, and plastic - and their properties. In addition, students will learn surveying and leveling as well as advanced topics including foundations, pavement, highways, steel roof trusses, concrete design, steel building frames, and more.	102	786	Construction Worker, Construction Laborer, Construction Technician, Construction Technologist
Facilities Maintenance Mechanic Training	The Facility Maintenance Mechanic Training program is designed to provide trainees with a comprehensive knowledge of how the skills needed by a facilities maintenance mechanic. Beginning with basic math and safety, tools, materials, and prints, students in the program learn the basics of pipefitting, carpentry, and HVAC systems. The program additionally covers advanced topics on common systems like pumps, compressors, and hydraulics to prepare technicians for any type of emergency within a residential or commercial facility.	118	903	Building Maintenance Mechanic, Facilities Manager, Facilities Maintenance Mechanic, Maintenance Tech
Industrial Painting	The Industrial Painting training program prepares learners with the skills needed by either a residential or industrial painter. Beginning with math, hand tools, and measuring, the program then covers pneumatic and power cutting tools as well as specific lessons in painting, plastering and adhesive. In addition, the program also instructs learners on the materials used in engineering environments and key chemistry concepts.	33	205	Painter, Painter Helper, Powder Coater, Coater, Industrial Painter
Mechanical and Electrical Technician Training	The Mechanical and Electrical Technician training program provides students with a comprehensive knowledge of industrial maintenance. Beginning with basic math and prints fundamentals, the program moves into key electrical and mechanical concepts such as currents, pumps, and hydraulics. The program also teaches advanced maintenance topics and provides a focus on semiconductors, microprocessors, circuits, PLCs, and more. Upon completion of the mechanical and electrical technician training program, students will have a solid understanding of the mechanical and electrical components of industrial environments and the skills needed to conduct maintenance.	140	902	See Electrical Maintenance and Millwright
Millwright Training	The Millwright skills training program teaches the skills needed by a well-rounded maintenance millwright. Beginning with the basic concepts of math, safety, tools, and prints for mechanical trades, the program then progresses to specific maintenance mechanic skills like metal cutting, machine tooling, hydraulics, pneumatics, and belt power. In addition to addressing specific equipment like pumps and rigging, the program also teaches the basics of welding, pipefitting, and industrial maintenance.	112	845	Millwright, Maintenance Mechanic, Maintenance Millwright

Electrical: Bundles and Descriptions

Bundle	Description	# of Modules	# of Hours	Skills applicable for following occupations:
Basic Electrical Training	The Basic Electrical Training program teaches students the fundamentals of working with electricity. The program introduces commonly used tools, AC/DC principles, motors, and electrical safety as well as basic troubleshooting, VOMs, and oscilloscopes. This program is highly recommended for those seeking to understand electricity at a foundational level.	27	129	Broad Range
Electric & Telecom Lineman Training	The Electrical & Telecom Lineman program is designed for those working on electrical wires or telecom lines. In addition to basic math, algebra, and trigonometry, the program teaches core electrical concepts before moving into specialized topics such as rigging, transformers, substations, distribution, transmission, and specific line-relevant tools.	92	722	Lineman, Wireman, Field Service Technician
Electric Maintenance Skills	"The Electrical Maintenance Skills program provides training on the critical skills needed as an electrical maintenance technician. From the beginning, workers learn the basics in math, safety, tools and print reading. The program then progresses into maintenance topics and core electrical topics such as AC/DC circuits, VOMs, and electrical equipment and tools. Students will complete the electrical maintenance training with knowledge on advanced technology topics relevant to electrical repair, including computer networks, sensors, PLCs, and more. Penn Foster can also provide the latest National Electric Code book to help trainees prepare for the license exam (at an additional cost).	250	1414	E&I Technician
Electrical Maintenance Technician Training	The Electrical Maintenance program provides students with the skills they need to work as an electrical maintenance technician. From the beginning, workers learn the basics in math, safety, tools and print reading. The program then progresses into maintenance topics and core electrical topics such as AC/DC circuits, VOMs, and electrical equipment and tools. Students will complete the electrical maintenance training with knowledge on advanced technology topics relevant to electrical repair, including computer networks, sensors, PLCs, and more. Penn Foster can also provide the latest National Electric Code book to help students prepare for the license exam (at cost).	128	757	Electrical Maintenance Technician
Electrician Training	The Electrician Training program teaches the entire scope of electrician skills. The program begins with an introduction to electrical equipment, circuit breakers, and lamps, including batteries, motors, plugs and fuses as well. It dives into specific topics such as controls for heating and air conditioning as well as key advanced concepts like troubleshooting, control systems, sensors and PLCs. Penn Foster can also provide the latest National Electric Code book to help students prepare for the license exam (at cost).	60	408	Electrician, Industrial Electrican, Residential Electrician
Electronics Maintenance Training	The Electronics Maintenance training program is intended for those with prior experience in electrical maintenance and are seeking a more advanced program. This program jumps directly into electronic systems and semiconductors, covering advanced topics such as robots, motors, and microprocessors. Trainees will also be taught specific skills relevant to troubleshooting, various control systems, and controllers.	122	750	Electronics Maintenance Technician

PHC Trades: Bundles and Descriptions

Bundle	Description	# of Modules	# of Hours	Skills applicable for following occupations:
HVAC Technician Training	The HVAC Technician training program covers the basics of HVAC systems and concepts, laying out the foundational skills needed by a professional HVAC worker. The program begins by teaching basic math, safety, and the commonly used tools in the HVAC trade before diving into maintenance, prints, and GD&T concepts. In addition, workers will study HVAC-specific topics like pipes, tanks, pumps, air-conditioning systems, electric heating, and gas appliances. This HVAC tech training does not include any content on specific modern HVAC-R systems, as these tend to be site-specific and varied.	70	469	HVAC Technician, HVAC Installer, HVAC Repairman, HVAC Service Tech, HVAC-R Tech
Pipefitter Training	The Pipefitter training program is designed to provide workers with the skills needed by an entry-level pipefitter. Beginning with basic math and safety, the program then dives into the basics of electricity, mechanics, print reading and tools. In addition, the training focuses on pipefitting and pipe-related concepts while also teaching several different welding techniques commonly used by pipefitters. Penn Foster can also provide the National Standard Plumbing Code book to help students prepare for the exam (at cost).	100	719	Pipefitter, steamfitter, welder fitter, pipe welder, sprinker fitter
Plumber Training	This program teaches trainees with no prior knowledge of the occupation the critical skills needed by a plumber. Beginning with basic math and measurement, the plumber training program covers tools and maintenance concepts as well as the in-depth topics of pipefitting, mechanics, and joining, assembling, and installing pipes. The program rounds out with welding and HVAC basics - core skills to becoming a well-rounded plumber. Upon completion of the program, learners will have acquired the skilled to prepare them to take the National Standard Plumbing Code exam. Penn Foster can also provide the National Standard Plumbing Code book to help students prepare for the exam (at cost).	100	751	Plumber

Manufacturing: Bundles and Descriptions

Bundle	Description	# of Modules	# of Hours	Skills applicable for following occupations:
Machinist Training	The Machinist training program provides learners with an understanding for machine types, their operation, and the underlying concepts behind machining. The program covers basics in safety, industrial math, measuring, print reading, metal types, and machining processes before moving into mills, lathes, turret lathes, grinding and more. The program is ideal for those looking to acquire the skills needed to become a machinist. CNC machinist training is taught separately.	77	696	Machinist, Machine Setter, Set-Up Machinist, Press Brake Operator
Machine Operator Training	The Machine Operator Training program teaches the principles of machining, including an introduction to bench work, prints, dimensioning, measuring instruments, and tools. The program is recommended for entry-level workers who do not operate machines, but are responsible for setting up the machine shop, staying safe in the environment, and understanding the tools, processes, and materials behind their work.	51	371	Machinist Helper, Machine Operator, Lathe Operator, Mill Operator, Press Operator
Production Worker Training	This program teaches the fundamentals needed to work in a production environment as well as an overview of key manufacturing concepts to prepare learners for entry-level manufacturing roles. This training for production workers teaches basic math, GD&T, safety and measurement skills as well as a high-level knowledge of currents, heat, maintenance, control systems and control instruments.	50	352	production operator, production worker, laborer
Quality Control	The Quality Control training program covers the basics of quality control in a manufacturing environment, including print reading, operation analysis, quality terminology and an overview of quality control in manufacturing. This program is intended for entry-level workers to acquire the skills needed by a quality control technician.	30	206	Quality Assurance Technician, Quality Control Analyst, Quality Control Technician
Tool & Die Maker Training	The Tool & Die Maker training program teaches the essentials of machining as well as the specific skills needed by a Tool & Die Maker. Initial topics include metals, industrial math, safety, milling, lathing, and grinding before moving into the advanced topics of toolmaking, heat treatment, jogs, dies, and fixtures.	113	793	Tool & Die Maker, Die Maker, Jig & Fixture Repairer, Tool & Die Machinist, Tool Repairer
Welder Training	The Welder training program provides trainees with the comprehensive knowledge needed by a welder, beginning with the fundamental industrial math before moving into drawing and schematics, electricity, tools, and welding equipment and techniques. This welding training program is a highly robust offering, teaching the full suite of components of welding to develop a more well-rounded welder.	105	725	Welder, Cutter, Solderer, Brazer
Welder Helper Training	The Welder Helper program provides users with the core components of learning to weld. After providing learners with basic industrial math skills, the program teaches the tools and techniques needed for arc welding, SMAW, and gas welding. This program is intended for both those seeking to learn targeted welding skills as well as those with prior welding background who are looking to gain a more formal knowledge of welding.	51	410	Welder Helper, Fitter