

# APPRENTICESHIP

IN WISCONSIN



Apprenticeship  
WORKS  
*for everyone!*



**FULFILLING THE  
NEEDS OF INDUSTRY**

# APPRENTICESHIP IN WISCONSIN

## FULFILLING THE NEEDS OF INDUSTRY

**APPRENTICESHIP** is a system of work-based learning that fulfills the needs of industry by preparing workers for skilled trades by combining on-the-job learning with classroom instruction. Wisconsin has a long and proud tradition of apprenticeship training. With the cooperation of industry, labor, government and education, apprenticeship programs assist in the development of a highly skilled workforce capable of meeting industry needs and helping employees maintain a high standard of living.

Industry today demands highly skilled, highly trained workers more than ever due to technological advances and global competition. Increasingly, we read and hear about employers who are unable to find skilled workers in a variety of trades that require highly technical training. Apprenticeship is one of the best solutions to this problem.

# APPRENTICESHIP IN WISCONSIN

Fulfilling the Needs of Industry

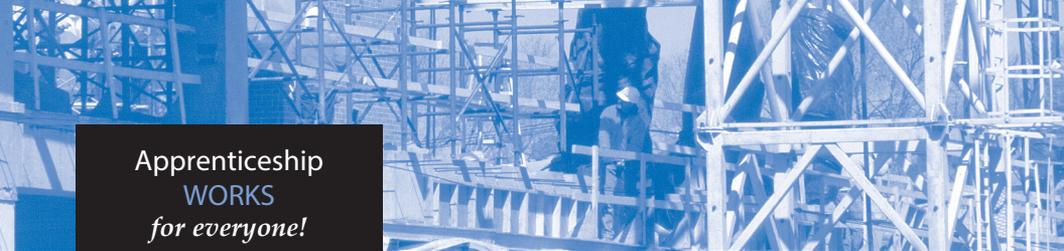
## Table of Contents

---

An Overview of Apprenticeship .....	2
What is Apprenticeship Training? .....	2
Why Choose Apprenticeship? .....	4
Employers Reap the Benefits of Apprenticeship.....	4
Veteran Benefits .....	5
Wages.....	5
Types of Apprenticeships.....	5
Construction Trades.....	5
Industrial Trades .....	6
Service Trades.....	6
Methods of Access	
Construction Trades .....	6
Industrial and Service Trades.....	8
Affirmative Action and Equal Employment Opportunity .....	8
Preparing for Entry Into an Apprenticeship Program .....	9
Apprenticeship Occupations .....	10

### Construction Trades

Bricklayer .....	13
Carpenter.....	14
Cement Mason/Concrete Finisher .....	15
Construction Craft Laborer .....	16
Electrician (Construction).....	17
Environmental Service Technician/HVAC Installer-Technician.....	18
Glazier.....	19
Heat and Frost Insulator .....	20
Ironworker.....	21
Operating Engineer/Heavy Equipment Operator .....	22
Painter and Decorator .....	23
Plasterer .....	24



Apprenticeship  
WORKS  
*for everyone!*

Plumber.....	25
Roofer .....	26
Sheet Metal Worker .....	27
Sprinklerfitter .....	28
Steamfitter .....	29
Teledata Communications.....	30

### Industrial Trades

Electrical-Substation.....	33
Industrial Maintenance Electrician.....	34
Injection Molding Machine Setter (Plastic).....	35
Machinist .....	36
Maintenance Mechanic and Millwright .....	37
Metal Fabricator.....	38
Mold Maker.....	39
Tool and Die Maker.....	40

### Service Trades

Barber/Cosmetologist.....	42
Cook/Chef .....	43
Correctional Officer .....	44
Electric Line Worker.....	45
Fire Service.....	46
Funeral Director .....	47
Maintenance Technician.....	48
Metering Technician .....	49

### Directory of Training Contacts

Apprenticeship Training Representatives.....	51
Technical College Apprenticeship Contacts .....	55

## AN OVERVIEW OF APPRENTICESHIP

---

The apprenticeship method of training—with a skilled worker passing on craft knowledge to another—is almost as old as recorded history.

Since the Middle Ages, skills have been passed on through a master-apprentice system in which the apprentice was indentured to the master for a specified period of years. The apprentice usually received food, clothing and shelter in return for the work the apprentice performed.

Wisconsin's law became a model for other states and for the federal government.

Apprenticeship in the United States continued as an unregulated system until 1911, when Wisconsin passed the country's first apprenticeship law. With safeguards for both the apprentice and the employer, Wisconsin's law became a model for other states and for the federal government in developing their own systems. In 1911, the Wisconsin Legislature established the state's vocational school system (now recognized as the Wisconsin Technical College System) to provide the related classroom instruction to apprentices.

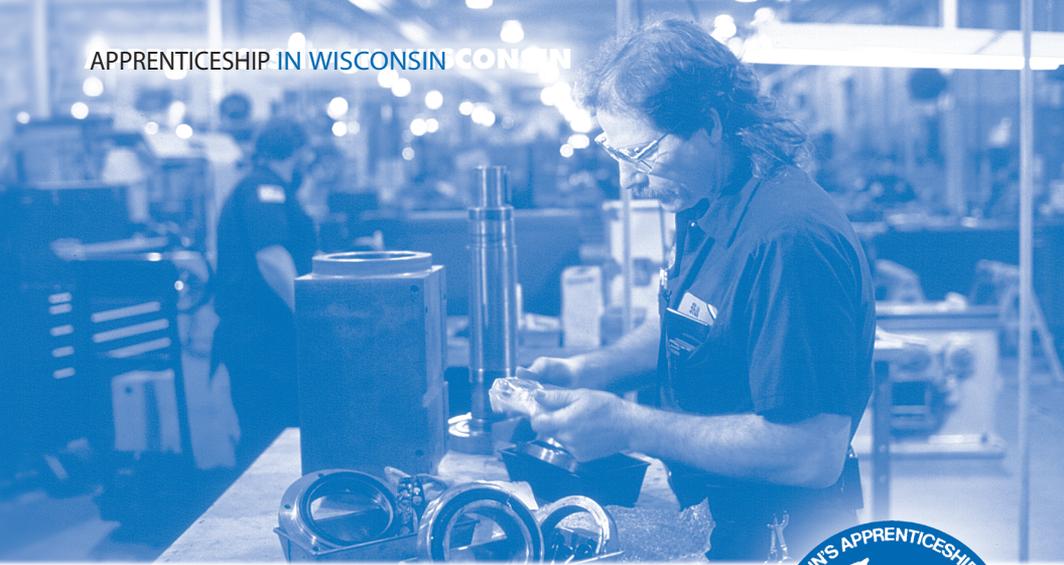
## WHAT IS APPRENTICESHIP TRAINING?

---

Related instruction is a key part of each apprenticeship and is required by the Wisconsin apprenticeship law.

Apprenticeship is a training strategy that combines supervised, structured on-the-job learning with related instruction and is sponsored by employers, employer associations or labor/management groups that have the ability to hire and train in a working environment. The employment opportunity is the most basic requirement for any apprenticeship. Without the job there is no "on-the-job learning" and such training represents 90% of the program.

The related instruction is theoretical and technical, and is usually provided by the Wisconsin Technical College System. Related instruction is a key part of each apprenticeship and is required by the Wisconsin apprenticeship law. If the apprenticeship is for two years or less, then the related instruction is at least 144 hours per year. If the apprenticeship is for more than two years, then the school provision must be for no less than 400 hours during the term of the apprenticeship.



Wisconsin is unique among the 50 states in requiring that employers pay apprentices for both time worked and time spent in the required classroom instruction, recognizing the importance of both aspects of apprenticeship training. The employer is obligated to pay the apprentice’s hourly wage while attending related instruction.

The requirements of apprenticeship training are described in federal and state laws and regulations. The National Apprenticeship Act of 1937 (also known as the Fitzgerald Act) provides the guidance from the federal level. Chapter 106 of Wisconsin Statutes provides additional state requirements.

These laws and regulations establish minimum requirements for protecting the welfare of the apprentice; i.e., the length of training, the type and amount of related instruction, supervision of the apprentice, appropriate ratios of apprentices to journey workers, apprentice selection and recruitment procedures, etc. Each individual trade has specified requirements and standards.

Wisconsin law also requires a written contract between the apprentice, the sponsor and the State of Wisconsin. The contract specifies the length of the training, an outline of the skills of the trade to be learned, the number of classroom hours required and the wage schedule outlining the wages the apprentice will receive.

The requirements of apprentice-ship training are described in federal and state laws and regulations. The National Apprenticeship Act of 1937 (also known as the Fitzgerald Act) provides guidance from the federal level.

## WHY CHOOSE APPRENTICESHIP?

---

Apprenticeship is a win-win situation. It offers benefits to the apprentice and the employer.

- Apprentices earn while they learn. They learn a skilled trade while earning a good wage and have a sense of job security.
- Apprenticeships often serve as an entry point into a career that would otherwise be closed to an individual due to lack of experience.
- Serving an apprenticeship provides a person with a lifetime skill and a comprehensive knowledge of the trade.
- Apprenticeship training enhances economic security for the individual since graduate apprentices are often promoted to supervisory positions.
- The skills apprentices learn are transferable from one employer to another and generally from one area of the country to another.

## EMPLOYERS REAP THE BENEFITS OF APPRENTICESHIP

---

When employers sponsor apprenticeship training, they make a long-term commitment to training and improving the companies' prospects for profitability and growth. Employers have found they gain from sponsoring apprenticeships in a variety of ways.

- Apprenticeship training reduces turnover.
- Apprenticeship training is long-term with measurable results.
- Apprentices are usually highly productive workers.
- Apprentices are among the most technologically up-to-date workers.
- The program provides employers with a pool of highly skilled workers from which future managers may be selected.
- Structured training fosters quality and teamwork.
- Training gives production workers a path for upward mobility.
- Apprenticeship programs serve as an effective recruitment method for graduates of the Wisconsin Technical College System.
- An employer's costs in beginning an apprenticeship program are minimal.
- Apprenticeship provides state and national recognition.

## VETERAN BENEFITS

---

It is possible to use GI Educational Benefits for apprenticeship training. Veterans, National Guards and Reservists and the children and spouse of a service-connected 100% permanently disabled or deceased veteran may qualify for a monthly benefit check from the Department of Veterans Affairs. Go to [www.gibill.va.gov](http://www.gibill.va.gov) for additional information on veteran benefits.

## WAGES

---

The apprentice is paid a wage while training with the sponsoring employer. Wisconsin law requires a progressive schedule for wage increases during the term of the contract. The apprentice's wage is guided by the skilled wage rate paid in the same trade.

## TYPES OF APPRENTICESHIPS

---

A variety of industries offer apprenticeship programs. Apprenticeship is organized into three employment sectors: construction, industrial (manufacturing) and service. Each trade has its own program requirements and selection procedures.

## CONSTRUCTION TRADES

---

Approximately half of the active apprentices in Wisconsin work in the construction trades. This includes the people who build, repair and remodel homes, commercial and industrial buildings, bridges, highways, airports and other structures.



Apprenticeship  
**WORKS**  
*for everyone!*



## INDUSTRIAL TRADES

---

Apprenticeable occupations in the industrial sector are usually offered in plants, factories and machine shops. There are many types of industries that utilize apprenticeship training including paper mills, commercial dairies, food production facilities, tool and die shops and a wide range of production manufacturers.

## SERVICE TRADES

---

Employment in the service sector generally involves attending to the needs or requests of people. Service trade apprenticeships include utility workers (electric line worker), personal service workers (barber/cosmetologist and cook/chef) and public safety trades (firefighter and correctional officer and nuclear auxiliary operators).

## METHODS OF ACCESS

---

Minimum requirements for entry into an apprenticeship vary by occupational and geographical areas and are determined by the Department of Workforce Development, Bureau of Apprenticeship Standards with assistance from the industry. The Bureau jointly reviews classroom training with the Wisconsin Technical College System. The Bureau also works closely with state and local apprenticeship advisory committees for all major trade groups and with labor unions, employers and employer associations to uphold the quality of the Wisconsin apprenticeship system.

## METHODS OF ACCESS - CONSTRUCTION TRADES

---

The application process for construction trades varies depending on the trade and the area of the state.



Construction trade apprenticeships are sponsored by local trade committees comprised of skilled workers and employers who are advisory to the Bureau of Apprenticeship Standards. Committee members recommend approval of qualified applicants to the Bureau. Each committee develops its own policies and practices, with approval from the Bureau of Apprenticeship Standards, for operating its apprenticeship program and for selecting apprentices.

Applications are taken by each local committee. Under BAS oversight, each committee will determine the selection items required for the selection process. These may include:

- An aptitude test.
- An interview with the committee.
- High school transcript.
- Proof of graduation or equivalent.
- Birth certificate.
- Valid driver's license.
- Submission to a recognized substance abuse test.

Once all application materials are on file and the applicant is deemed to be qualified, the committee will notify the applicant as to the next step in the procedure.

The construction trades use two methods for the actual placement of apprentices in jobs: the rank order list and the letter of introduction.

In the rank order list method, the committee creates a list of candidates in order of their cumulative scores on written and oral examinations. An employer seeking an apprentice will make a request to the appropriate apprenticeship committee. The committee will contact the next person on the list and ask him/her to report for acceptance into the apprenticeship program and to sign the contract.

In the letter of introduction method, applicants who meet the basic requirements are given a letter from the sponsoring committee stating they are eligible to be hired as apprentices. They must then find an employer to sponsor their apprenticeship. Frequently the committee will provide a list of participating employers.

To obtain a list of local construction trade committees contact the local Bureau of Apprenticeship Standards representative. Contact information is available at [www.wisconsinapprenticeship.org](http://www.wisconsinapprenticeship.org) and at the back of this book.

## METHODS OF ACCESS - INDUSTRIAL AND SERVICE TRADES

---



Most employers require a high school diploma or equivalent, math and reading skills.

Applying for apprenticeship in the industrial and service sectors involves applying directly to the company that operates an apprenticeship program. Although the Bureau of Apprenticeship Standards has set minimum entry requirements for each individual trade, eligibility requirements will vary from employer to employer and trade to trade. Most employers require a high school diploma or equivalent, math and reading skills.

Some employers test individuals to determine aptitude and trade knowledge. Some of the larger companies and those companies that have collective bargaining agreements often limit apprenticeship opportunities to people who are currently in their employment. This may mean that an individual interested in becoming an apprentice will have to take another position with the company while waiting for the opportunity to serve in an apprenticeship. Some companies may list apprenticeship opportunities with their local technical college, in local newspaper classified ads, or through Job Center of Wisconsin [www.jobcenterofwisconsin.com](http://www.jobcenterofwisconsin.com) online.

## AFFIRMATIVE ACTION and EQUAL EMPLOYMENT OPPORTUNITY

---



Apprenticeship opportunities are available to all qualified persons, and the Bureau of Apprenticeship Standards is committed to assisting employers and local committees in meeting their affirmative action goals. The Bureau has adopted the following Equal Employment Opportunity pledge that all apprenticeship sponsors also support: The recruitment, selection, employment and training of apprentices during their apprenticeship shall be without discrimination because of race, color, religion, national origin, sex, age, creed, handicap, marital status, ancestry, sexual orientation, arrest record, conviction record, or membership in the military forces of the United States or this State.

## PREPARING FOR ENTRY INTO AN APPRENTICESHIP PROGRAM

---

Preparing for apprenticeship includes both physical and mental readiness. Many of the skilled trades require physical strength and endurance. Regular exercise and training will help prepare individuals who wish to enter a trade with strenuous physical requirements. Persons with disabilities may take advantage of apprenticeship opportunities provided the individual is able to adequately and safely perform job-related duties with or without reasonable accommodations.

Academic requirements and background will vary from trade to trade. Most trades require that applicants are high school graduates or the equivalent. Many of the trades require a strong math background and some require classes such as Algebra and Geometry. Applicants who did not take a required class in high school may still have the opportunity to take the classes necessary at the local technical college, training center, community-based organization, library or a Wisconsin Job Center. Some employers require that apprentices have some technical training (such as a technical college degree or certificate) before entering an apprenticeship program.

Written tests are often part of the application process for apprenticeship. Tests may include some or all of the following subject areas: math, reading, science, spatial ability, manual dexterity and other areas that may be important to the individual serving an apprenticeship. Persons who need help to prepare for a test may find assistance at the local technical college or public library. High school students may work with their guidance counselor or individual instructors to prepare for testing.

If you are interested in pursuing an apprenticeship and fail to meet the required educational requirements, contact one of the Bureau of Apprenticeship Standards Apprenticeship Training Representatives listed in the back of this publication. They will refer you to an organization that will assist you in acquiring the necessary skills.

# APPRENTICESHIP OCCUPATIONS

Employer involvement is essential to have an active apprenticeship program.

There are currently hundreds of occupations defined as apprenticeable by the Bureau of Apprenticeship Standards, with new titles being added as the need arises. Occupations approved in the State of Wisconsin must also appear on an approved list by the U.S. Department of Labor, Bureau of Apprenticeship and Training or be submitted to the federal Bureau for approval. In order for an occupation to be approved by the Bureau of Apprenticeship Standards as apprenticeable, an occupation must meet the following criteria:

- Involve manual, mechanical or technical skills
- Customarily be learned through on-the-job learning
- Require related instruction to supplement on-the-job learning
- Be recognized throughout an industry

Employer involvement is essential to have an active and successful apprenticeship program. The following is a list of the more common trades currently operating in Wisconsin. Not all trades are available in all areas.

## Construction Apprenticeship Programs



- Bricklayer
- Carpenter
- Cement Mason/Concrete Finisher
- Construction Craft Laborer
- Electrician (Construction)
- Environmental Systems Technician/HVAC Installer-Technician
- Glazier
- Heat and Frost Insulator
- Ironworker
- Operating Engineer/Heavy Equipment Operator
- Painter and Decorator
- Plasterer
- Plumber
- Roofer
- Sheet Metal Worker
- Sprinklerfitter
- Steamfitter
- Teledata Communications

## Industrial Apprenticeship Programs

---

Electrician - Substation  
Industrial Maintenance Electrician  
Injection Molding Machine Setter (Plastic)  
Machinist  
Maintenance Mechanic and Millwright  
Metal Fabricator  
Mold Maker  
Tool and Die Maker

## Service Apprenticeship Programs

---

Barber/Cosmetologist  
Cook/Chef  
Correctional Officer  
Electric Line Worker  
Fire Service  
Funeral Director  
Maintenance Technician  
Metering Technician

The next section of this guide provides an overview of these trades. Additional information about working conditions, pay scales, job outlook, etc. may be obtained by visiting your local library or searching the internet. There are many reference books and publications that give information on careers.

A popular reference book is the Occupational Outlook Handbook distributed by the U.S. Department of Labor. Information can also be obtained through the Internet at

<http://www.bls.gov/oco/>

<http://online.onetcenter.org/>

<http://www.jobcenterofwisconsin.com/>

<http://worknet.wisconsin.gov/worknet>

For more information on apprenticeships in Wisconsin, please contact your area Bureau of Apprenticeship Standards Apprenticeship Training Representative listed in the back of this booklet, or call the Bureau's Administrative office at (608) 266-3332.



Apprenticeship  
**WORKS**  
*for everyone!*





## BRICKLAYER APPRENTICESHIP

---

### WORK DESCRIPTION

Bricklayers build walls and structures using bricks, concrete blocks, and mortar. The work varies in complexity, from laying a simple masonry walkway to installing an ornate exterior on a high-rise building. Trade tasks include laying, pointing, cleaning, water-proofing and cutting of brick walls; fireproofing; construction of arches; setting of stone trimmings; cutting, laying and pointing of ashlar, rubble, etc; laying of artificial stone, glass blocks, terra cotta and insulation; cutting, laying and pointing of cement blocks and glazed tiles; and erection of precast panels.

### WORKING CONDITIONS

The outdoor work requires prolonged standing, kneeling, squatting, bending and lifting heavy materials weighing 60-65 lbs on a daily basis. These physical requirements must be considered because they are a constant factor in performing daily work.

### TRAINING

- 3-year training program
- 4,280 hours on-the-job learning
- 400 hours paid related instruction
- Additional related instruction may be required

Classroom training includes blueprint reading, mathematics, layout work and sketching.

### APPLICATION REQUIREMENTS

Applicants must be at least 17 years of age with parental/guardian consent.

High school diploma or equivalent

Meet required norms on aptitude test (if required)

Physically able to perform trade

Valid driver's license or reliable transportation

May have to take and pass a drug test prior to employment

# CARPENTER APPRENTICESHIP

---

## WORK DESCRIPTION

Carpenters construct, erect, install or repair structures and fixtures made of wood; concrete forms; building frameworks including partitions, joists, studding and rafters; wood stairways, window and door frames; and hardwood floors using carpentry hand and power tools. They build wood framing for houses, roofs, stairs, decks and sheaths, and forms for concrete and frame buildings, walls, footings, columns and stairs. The trade also involves carpentry work to install cabinets, siding, drywall and insulation. Carpenters install doors, windows, store fronts and hand rails, building cabinets and counter tops and may work on drywall, wood flooring, metal jambs and ceilings. They are skilled in interior and exterior finish work and are able to read blueprints, measure accurately and calculate dimensions.

## WORKING CONDITIONS

Carpenters may work indoors and outdoors in various weather conditions requiring prolonged standing, climbing, kneeling, squatting and lifting heavy carpentry materials. Working conditions vary with each job and may include working on ladders and scaffolding. Carpenters are occasionally exposed to fumes and dust. Ongoing safety training is provided to avoid job site accidents. Extensive traveling may be required.

## TRAINING

- 4-year training program
- 5,840 hours on-the-job learning
- 400 hours paid related instruction
- Additional related instruction may be required

Apprentices receive classroom instruction in safety, first aid, blueprint reading, freehand sketching, basic mathematics and different carpentry techniques.

## APPLICATION REQUIREMENTS

Applicants must be at least 17 years of age

High school diploma or equivalent

Meet required norms on aptitude test (if required)

Physically able to perform trade

Valid driver's license or reliable transportation

## CEMENT MASON/CONCRETE FINISHER APPRENTICESHIP

---

### WORK DESCRIPTION

The primary work of the cement mason is finishing the exposed concrete surfaces on many types of construction projects. These projects range from small jobs such as finishing patios, floors and sidewalks to work on huge dams, miles of concrete highways, foundations, walls of large buildings and airport runways. The cement mason levels, smoothes and shapes surfaces of freshly poured concrete. Although they are involved in home building and basement and driveway work, the bulk of their work is commercial and industrial building. They also set forms for sidewalks and waterproof concrete walls.

### WORKING CONDITIONS

Since most of the work is done outdoors, working conditions may be determined by the weather. The work is active and strenuous with most of the work done on the ground or the floor level.

### TRAINING

- 3-year training program
- 3,600 hours on-the-job learning
- 400 hours paid related instruction
- Additional related instruction may be required

Class work consists of studying the working characteristics of various cement and concrete mixes.

### APPLICATION REQUIREMENTS

Applicants must be at least 17 years of age

High school diploma or equivalent

Meet required norms on aptitude test (if required)

Physically able to perform trade

Valid driver's license or reliable transportation

May have to take and pass a drug test prior to employment

# CONSTRUCTION CRAFT LABORER APPRENTICESHIP

---

## WORK DESCRIPTION

Construction craft laborers perform a wide range of non-special trade construction work. Laborers are employed in all areas of construction including commercial and residential new building; highway, bridge, tunnel, and shaft construction; large industrial and environmental restoration projects; and various restoration and demolition jobs. In highway and road construction, laborers work to clear and prepare sites for construction; help to check site preparations against blueprint specifications regarding locations and grades; complete finish work after the paving material has been spread; and perform necessary site clean-up of debris and waste materials. Construction craft laborers do demolition work on existing buildings and structures and perform environmental clean-up on job sites containing hazardous waste, asbestos, lead-based paint and low-level radiation.

## WORKING CONDITIONS

Most laborers perform physically demanding work. They may lift and carry heavy objects, and stoop, kneel, crouch, or crawl in awkward positions. Some work at great heights, or outdoors in all weather conditions. Some jobs may expose workers to hazardous materials or chemicals, fumes, odors, loud noise or dangerous machinery. Laborers wear appropriate safety clothing including gloves, hard hats, protective chemical suits and devices to protect their eyes, respiratory system and hearing.

## TRAINING

- 3-year training program
- 4,000 hours on-the-job learning
- 400 hours paid related instruction
- Additional related instruction may be required

## APPLICATION REQUIREMENTS

Applicants must be at least 18 years of age

Meet required norms on aptitude test (if required)

Reading, writing, comprehension and communication skills

Physically able to perform trade

Valid driver's license or reliable transportation

## ELECTRICIAN (CONSTRUCTION) APPRENTICESHIP

---

### WORK DESCRIPTION

Electricians install, connect, test, and maintain electrical systems for a variety of purposes, including climate control, security and communications. Electricians use a variety of electrical equipment and apply appropriate techniques; plan wiring installation from blueprints; properly locate boxes and outlets; and test continuity of electrical circuits to ensure compatibility and safety of components following national electrical code and complying with state and local building codes. In addition to wiring a building's electrical system, electricians may install coaxial or fiber optic cable for computers and other telecommunications equipment.

### WORKING CONDITIONS

Electrical work can be indoors or outdoors. The work is sometimes physically strenuous requiring prolonged standing in cramped or uncomfortable positions. Electricians may work in dusty, dirty, hot and wet conditions, or in confined areas, ditches or other uncomfortable places. The working environment varies with each job and may include working on ladders and scaffolding. Electricians follow strict safety procedures to prevent injuries from electrical shock, falls and cuts.

### TRAINING

- 4 to 5 year training program
- 8,000 hours on-the-job learning
- 400 hours paid related instruction
- Additional related instruction may be required

In the classroom, apprentices learn blueprint reading, electrical theory, electronics, mathematics, electrical code requirements, and safety and first aid practices.

### APPLICATION REQUIREMENTS

Applicants must be at least 17 years of age

High school diploma or equivalent

Algebra with a passing grade "C" or higher or equivalent

Meet required norms on aptitude test (if required)

Physically able to perform trade

Valid driver's license or reliable transportation

# ENVIRONMENTAL SERVICE TECHNICIAN/ HVAC INSTALLER- TECHNICIAN APPRENTICESHIP

---

## WORK DESCRIPTION

Heating, air-conditioning, and refrigeration systems consist of many mechanical, electrical, and electronic components, including motors, compressors, pumps, fans, ducts, pipes, thermostats and switches. In central heating systems, a furnace heats air that is distributed throughout the building by a system of metal or fiberglass ducts. Technicians must be able to maintain, diagnose and correct problems throughout the entire system. They may adjust system controls to recommended settings and test the performance of the entire system using special tools and test equipment. The work involves installing ductwork and installing and wiring environmental control systems.

## WORKING CONDITIONS

Work is performed both indoors and outdoors in work spaces ranging from outside on scaffolding to crawl spaces inside walls. Work requires physical stamina with considerable bending, lifting, carrying, pushing and pulling.

## TRAINING PERIOD

- 5-year training program
- 8,440 hours on-the-job learning
- 560 hours paid related instruction
- Additional related instruction may be required

Courses include blueprint reading, mathematics, electrical code requirements, and safety and first aid practices.

## APPLICATION REQUIREMENTS

Applicants must be at least 17 years of age

High school diploma or equivalent

Meet required norms on aptitude test (if required)

Physically able to perform trade

Valid driver's license or reliable transportation

## GLAZIER APPRENTICESHIP

---

### WORK DESCRIPTION

Glaziers are responsible for selecting, cutting, installing, replacing and removing all types of glass. Residential glazing work involves replacing glass in home windows; installing glass mirrors, shower doors and bathtub enclosures; and fitting glass for table tops and display cases. On commercial interior projects, glaziers install items such as heavy, often etched, decorative room dividers or security windows. Glazing projects also may involve replacement of store-front windows for supermarkets, auto dealerships or banks. In the construction of large commercial buildings, glaziers build metal frame-work extrusions and install glass panels or curtain walls.

### WORKING CONDITIONS

Glaziers often work outdoors, sometimes in inclement weather. At times, they work on scaffolds at great heights. They do a considerable amount of bending, kneeling, lifting and standing.

### TRAINING PERIOD

- 4-year training program
- 5,840 hours on-the-job learning
- 400 hours paid related instruction
- Additional related instruction may be required

Courses include basic mathematics, blueprint reading and sketching, general construction techniques, safety practices and first aid.

### APPLICATION REQUIREMENTS

Applicants must be at least 17 years of age

High school diploma or equivalent

Meet required norms on aptitude test (if required)

Physically able to perform trade

Valid driver's license or reliable transportation

# HEAT AND FROST INSULATOR APPRENTICESHIP

---

## WORK DESCRIPTION

Properly insulated buildings reduce energy consumption by keeping heat in during the winter and out in the summer. Refrigerated storage rooms, vats, tanks, vessels, boilers, and steam and hot water pipes also are insulated to prevent the wasteful transfer of heat. Insulation workers install this insulating material. Insulation workers cement, staple, wire, tape or spray insulation. They insulate hot and cold piping, refrigerant lines, duct work, boilers, tanks, large power plants, brine lines and cooler rooms.

## WORKING CONDITIONS

Insulation workers generally work indoors. They spend most of the workday on their feet, either standing, bending or kneeling. Sometimes, they work from ladders or in tight spaces. The work is not strenuous and requires more coordination than strength. Insulation work is often dusty and dirty. The minute particles from insulation materials, especially when blown, can irritate the eyes, skin and respiratory system. Removing cancer-causing asbestos insulation is a hazardous task and is done by specially trained workers. To protect themselves from the dangers of asbestos and irritants, workers follow strict safety guidelines, take decontamination showers, keep work areas well ventilated and wear protective suits, masks and respirators.

## TRAINING

- 4-year training program
- 5,840 hours on-the-job learning
- 400 hours paid related instruction
- Additional related instruction may be required

Class work includes blueprint reading, safety, and the study of heat and sound conduction.

## APPLICATION REQUIREMENTS

Applicants must be at least 18 years of age

High school diploma or equivalent

Meet required norms on aptitude test (if required)

Physically able to perform trade

May have to take and pass a drug test prior to employment

## IRONWORKER APPRENTICESHIP

---

### WORK DESCRIPTION

The work includes the fabrication, production, erection and construction of iron, steel, ornamental lead, bronze, etc. in the erection of industrial, commercial or large residential buildings. They erect the steel framework of bridges, buildings and other structures including metal storage tanks and overhead crane runways that support heavy equipment. Ironworkers are frequently required to lift and carry heavy load or rebar. They also set steel bars or steel mesh in concrete forms to strengthen concrete in buildings and bridges.

### WORKING CONDITIONS

With the exception of some ornamental ironwork, remodeling and repair work, and the occasions where temporary shelters can be set up, most of the work is done outdoors. Most ironwork can be carried on year round except in instances of very severe weather. Ironworkers frequently work at great heights. The work is physically demanding and may involve extensive travel.

### TRAINING

- 3 to 4 year training program
- 6,000 hours on-the-job learning
- 400 hours paid related instruction hours
- Additional related instruction may be required

Studies include blueprint reading; mathematics for layout work; the basics of structural erecting, rigging, reinforcing, welding, and burning; ornamental erection; and assembling.

### APPLICATION REQUIREMENTS

Applicants must be at least 18 years of age

High school diploma or equivalent

Meet required norms on aptitude test (if required)

Physically able to perform trade

Valid driver's license or reliable transportation

Required to take and pass a drug test at time of placement

# OPERATING ENGINEER/HEAVY EQUIPMENT OPERATOR APPRENTICESHIP

---

## WORK DESCRIPTION

Operating engineers operate and maintain engine-powered machinery and heavy equipment used in the construction industry (i.e., bulldozers, compressors, pumps, hoists, derricks, cranes, shovels, tractors, scrapers and motor graders). Operators move levers or foot pedals, operate switches or turn dials to control heavy equipment and attachments (i.e., blades, buckets, scrapers and swing booms). The heavy equipment is used to construct highways, dams, roads, buildings, and various other projects; and to excavate, move and grade earth, erect structural and reinforcing steel, and pour concrete or other hard surface paving materials.

## WORKING CONDITIONS

Operating engineers frequently work outdoors in adverse weather conditions. The bulldozer and scraper equipment is noisy and shake/jolt the operator. Safety features on heavy equipment include overhead guards on forklift trucks, and roll bars on construction machinery. To avoid personal injury and equipment damage while operating heavy equipment, operators are trained in safety precautions and practices to avoid rollovers, collisions and other accidents. Work is physically demanding with extensive travel for statewide employment opportunities requiring lodging away from residence for extended periods of time.

## TRAINING

- 3-year training program
- 6,000 hours on-the-job learning
- 400 hours paid related instruction
- Additional related instruction may be required

Apprentices learn skills and competency on three major machines.

## APPLICATION REQUIREMENTS

Applicants must be at least 18 years of age

High school diploma or equivalent

Meet required norms on aptitude test (if required)

Physically able to perform trade

Valid driver's license or reliable transportation

Commercial driver's license (CDL) may be required

## PAINTER AND DECORATOR APPRENTICESHIP

---

### WORK DESCRIPTION

Painters apply paint, stain, varnish and other finishes to buildings and other structures. They select the right paint or finish for the surface to be covered, taking into account durability, ease of handling, method of application and customers' wishes. Painters first prepare the surfaces to be covered, so that the paint will adhere properly. This may require removing the old coat of paint by stripping, sanding, wire brushing, burning, or water and abrasive blasting. Painters also wash walls and trim to remove dirt and grease, fill nail holes and cracks, sandpaper rough spots and brush off dust. On new surfaces, they apply a primer or sealer to prepare the surface for the finish coat. Painters also mix paints and match colors, relying on knowledge of paint composition and color harmony. They also cover walls and ceilings with decorative wall coverings made of paper, vinyl or fabric.

### WORKING CONDITIONS

Painters and paperhangers stand for prolonged periods. Their jobs also require a considerable amount of climbing, bending, kneeling, crouching, crawling and reaching with arms raised overhead. Painters often work outdoors but seldom in wet, cold or inclement weather. Painters wear masks to reduce exposure to hazardous materials or paint fumes when working in areas with poor ventilation.

### TRAINING

- 4-year training program
- 5,840 hours on-the-job learning
- 400 hours paid related instruction
- Additional related instruction may be required

Training includes instruction in color harmony, use and care of tools and equipment, surface preparation, application techniques, paint mixing and matching, characteristics of different finishes, blueprint reading, wood finishing and safety.

### APPLICATION REQUIREMENTS

Applicants must be at least 18, unless a high school graduate at age 17

High school diploma or equivalent

Meet required norms on aptitude test (if required)

Physically able to perform trade

Ability to distinguish colors

Valid driver's license or reliable transportation

# PLASTERER APPRENTICESHIP

---

## WORK DESCRIPTION

Plasterers apply plaster to interior walls and ceilings to form fire-resistant and relatively soundproof surfaces. They also apply plaster veneer over drywall to create smooth or textured abrasion-resistant finishes. In addition, plasterers install prefabricated exterior insulation systems over existing walls – for good insulation and interesting architectural effects – and cast ornamental designs in plaster.

## WORKING CONDITIONS

Most plastering jobs are indoors. Plasterers work outside on scaffolding when applying stucco or exterior wall insulation and decorative finish systems. Plastering is physically demanding requiring considerable standing, bending, lifting and reaching overhead. The work can be dusty and dirty, and plaster materials may irritate the skin and eyes.

## TRAINING

- 3-year training program
- 4,280 hours on-the-job learning
- 400 hours paid related instruction
- Additional related instruction may be required

Subjects include drafting, blueprint reading and mathematics for layout work.

## APPLICATION REQUIREMENTS

Applicants must be at least 17 years of age with parental/guardian consent

High school diploma or equivalent

Meet required norms on aptitude test (if required)

Physically able to perform trade

Valid driver's license or reliable transportation

May have to take and pass a drug test prior to employment

## PLUMBER APPRENTICESHIP

---

### WORK DESCRIPTION

Plumbers install, repair and maintain the water supply, waste water treatment, drainage and gas systems in homes, commercial and industrial buildings. The work includes plumbing tasks to assemble, install and repair pipes, fittings, and fixtures of heating, water and drainage systems according to specifications and plumbing codes. Plumbers also install sanitary facilities such as lavatories, toilets, tubs, bathroom fixtures, showers, kitchen fixtures, drinking fountains and laundry equipment.

### WORKING CONDITIONS

Plumbing work can be indoors or outdoors in existing and newly constructed buildings, in various weather conditions and around noise, dirt and mud. The work requires physical strength and stamina with prolonged standing, lifting heavy pipes and equipment and working in cramped, awkward or uncomfortable positions. Training in safety practices prevents the risk of dangers with falls from ladders, cuts from sharp tools and burns from hot pipes or soldering equipment.

### TRAINING

- 5-year training program
- 7,500 hours of on-the-job learning
- 500 hours paid related instruction
- Additional related instruction may be required

Topics include plumbing code, repair and service, materials, installation of fixtures and appliances, system design, trade math, safety, science, blueprint reading and isometric drawing.

### APPLICATION REQUIREMENTS

High school diploma or equivalent

Meet required norms on aptitude test (if required)

Physically able to perform trade work

Valid driver's license or reliable transportation

May have to take and pass a drug test prior to employment

# ROOFER APPRENTICESHIP

---

## WORK DESCRIPTION

A leaky roof can damage ceilings, walls, and furnishings. To protect buildings and their contents from water damage, roofers repair and install roofs made of tar or asphalt and gravel; rubber or thermoplastic; metal; or shingles made of asphalt, slate, fiberglass, wood, tile, or other material. Repair and reroofing – replacing old roofs on existing buildings – provide many job opportunities for these workers. Roofers also may waterproof foundation walls and floors.

## WORKING CONDITIONS

Roofing work is strenuous. It involves heavy lifting, as well as climbing, bending, and kneeling. Roofers work outdoors in all types of weather, particularly when making repairs. These workers risk slips or falls from scaffolds, ladders, or roofs, or burns from hot bitumen. In addition, roofs become extremely hot during the summer.

## TRAINING

- 4 to 5 year program
- 5,600 to 6,600 hours on-the-job learning
- 400 hours paid related instruction
- Additional related instruction may be required

Subjects include tools and their use, arithmetic and safety.

## APPLICATION REQUIREMENTS

Applicants must be at least 18 years of age

High school diploma or equivalent is preferred within first six months, or three years work experience in trade

Physically able to perform trade

Valid driver's license or reliable transportation

Commercial driver's license may be required

## SHEET METAL WORKER APPRENTICESHIP

---

### WORK DESCRIPTION

Sheet metal workers make, install, and maintain air-conditioning, heating, ventilation, and pollution control duct systems; roofs; siding; rain gutters; downspouts; skylights; restaurant equipment; outdoor signs; and many other products made with metal sheets. They also may work with fiberglass and plastic materials. Although some workers specialize in fabrication, installation, or maintenance, most do all three jobs.

### WORKING CONDITIONS

Sheet metal workers who fabricate sheet metal products work in shops that are well-lighted and well-ventilated. However, they stand for long periods and lift heavy materials and finished pieces. Those performing installation work do considerable bending, lifting, standing, climbing, and squatting, sometimes in close quarters or in awkward positions. Although duct systems and kitchen equipment are installed indoors, the installation of siding, roofs, and gutters involves much outdoor work, requiring sheet metal workers to work in various kinds of weather.

### TRAINING

- 5-year training program
- 8,600 hours of on-the-job learning
- 400 hours paid related instruction
- Additional related instruction may be required

Classes include drafting, plan and specification reading, trigonometry and geometry applicable to layout work, the use of computerized equipment, welding, and the principles of heating, air-conditioning and ventilating systems.

### APPLICATION REQUIREMENTS

Applicants must be at least 17 years of age

High school diploma or equivalent

Physically able to perform trade

Meet required norms on aptitude test (if required)

Valid driver's license or reliable transportation

# SPRINKLERFITTER APPRENTICESHIP

---

## WORK DESCRIPTION

Licensed sprinklerfitters install automatic fire sprinkler systems in new and existing buildings in all types of construction, mostly commercial, using valves, hangers, steel and plastic pipe. Most work is at the ceiling level using ladders and lift platforms at heights ranging from 8-20' and in some cases up to 100'.

## WORKING CONDITIONS

The work is performed at varying degrees of height indoors between the roofs and ceilings of buildings or outside installing underground pipe work in a variety of weather conditions. Work requires physical stamina with considerable climbing, bending and carrying heavy pieces of pipe while working in elements ranging from hot boiler rooms to unheated open buildings. Apprentices receive safety training to improve manual dexterity in handling the tools of the trade without injury and to reduce the risk of injuries from falls. Traveling is required to various job sites.

## TRAINING

- 4 to 5 year training program
- 8,000 hours on-the-job learning
- 400 hours paid related instruction
- Additional related instruction may be required

Class work focuses on state sprinklerfitter and plumbing codes.

## APPLICATION REQUIREMENTS

Applicants must be at least 17 years of age

High school diploma or equivalent

Meet required norms on aptitude test (if required)

Physically able to perform trade work

Valid driver's license or reliable transportation

May have to take and pass a drug test prior to employment

## STEAMFITTER APPRENTICESHIP

---

### WORK DESCRIPTION

Steamfitters assemble, install, alter and repair pipelines or pipe systems that carry water, steam, compressed air, liquids and gases required for processing, manufacturing, heating and cooling. They install piping and tubing made of carbon steel, copper, plastic, glass or other metals using a variety of processes including brazing, welding, screwing, gluing, bending and mechanical joints. Work includes installation of heating and cooling equipment and mechanical control systems.

### WORKING CONDITIONS

Steamfitters work in industrial plants, chemical plants, refineries, power plants, waste water treatment plants, hospitals and most other commercial, industrial, institutional and residential buildings. The indoor or outdoor work requires strenuous physical stamina with walking, standing, climbing, lifting and working in cramped spaces or in high areas. Steamfitters work in buildings, trenches, roofs, from scaffolding, on ladders and inside tanks. Safety training reduces hazards from exposure to chemicals, gases, fumes, loud noise and falls from ladders and scaffolds.

### TRAINING

- 5-year training program
- 7,500 hours on-the-job learning
- 500 hours paid related instruction
- Additional related instruction may be required

Classroom subjects include drafting and blueprint reading, mathematics, applied physics and chemistry, and safety.

### APPLICATION REQUIREMENTS

Applicant's age shall be as stated in the state employment laws

High school diploma or equivalent

Meet required norms on aptitude test (if required)

Physically able to perform trade work

Valid driver's license or reliable transportation

# TELEDATA COMMUNICATIONS APPRENTICESHIP

---

## WORK DESCRIPTION

Teledata communications technicians design, integrate, install and provide field maintenance and service on products that transport voice, video, audio and data signals in commercial or residential premises; capture and display signals; and use signals to contact electrical apparatus. They work for a variety of companies including alarm, security or home automation companies; data cabling companies; home theater designers; sound and communication contractors; systems integrators telecommunications or electrical contractors with data communications divisions.

## WORKING CONDITIONS

Teledata work can be indoors or outdoors with less exposure to inclement weather. The strenuous work requires standing for extended periods in cramped or uncomfortable positions. Safety procedures are strictly enforced while working with high voltage or in high places and have greatly reduced and prevented electrical injuries from electrical shock, falls and cuts.

## TRAINING

- 3-year training program
- 4,800 hours on-the-job learning
- 432 hours paid related instruction
- Additional related instruction may be required

Courses may include blueprint reading, fire safety, relay logic, computer skills, electronics, instrumentation, electric code, networking, data communications and safety.

## APPLICATION REQUIREMENTS

Applicants must be at least 18 years of age

High school diploma or equivalent

Algebra with a passing grade "C" or higher or equivalent

Meet required norms on aptitude test (if required)

Physically able to perform trade

Valid driver's license or reliable transportation





## ELECTRICIAN - SUBSTATION

---

### WORK DESCRIPTION

Substation electricians install, maintain and repair electrical equipment (transformers, breakers, reclosers, etc.) in electrical substations. They troubleshoot problems or outages that occur at a substation. They build substations and components for substations and install electric cables in substations. They also operate such substations.

### WORKING CONDITIONS

Substation electricians must lift or work in stooped and cramped positions. They usually work outdoors in all kinds of weather and are subject to 24-hour call. Most usually work a 40-hour week, but when severe weather damages a substation, they may work long and irregular hours to restore service.

### TRAINING

- 4-year training program
- 7360 hours of on-the-job learning
- 640 hours of paid related instruction
- Additional related instruction may be required

Classroom instruction is offered one day every other week. It focuses on the technical aspects of the trade in a classroom setting.

### APPLICATION REQUIREMENTS

High school diploma or equivalent

Valid driver's license or reliable transportation

Most employers test applicants for basic verbal, arithmetic and abstract reasoning skills

Some employers test for physical ability such as balance, coordination, strength and mechanical aptitude

Applicants apply directly to the electrical utility

# INDUSTRIAL MAINTENANCE ELECTRICIAN APPRENTICESHIP

---

## WORK DESCRIPTION

Industrial maintenance electricians maintain and repair many different types of electrical equipment. They may also modify or install electrical equipment like motors, transformers, generators, machine controls and lighting systems in industrial, commercial and public establishments. The electrician is responsible for the periodic inspection of equipment to locate and repair defects before breakdowns occur.

## WORKING CONDITIONS

Electricians must be able to stand for long periods of time and work in cramped or uncomfortable positions. They are employed in manufacturing plants and use protective equipment to avoid common hazards such as safety belts, protective glasses and hard hats.

## TRAINING

- 4-year training program
- 7,744 hours on-the-job learning
- 576 hours paid related instruction
- Additional related instruction may be required

The apprentice is taught the theory and the knowledge related to safety procedures while working with electrical components. Instruction also consists of local, state, and national electrical codes pertaining to the industrial application.

## APPLICATION REQUIREMENTS

Applicants must be at least 18 years of age

Entry requirements vary by employer

High school diploma or equivalent

Physically able to perform trade

Applicants apply directly to participating employers

## INJECTION MOLDING MACHINE SETTER (PLASTIC) APPRENTICESHIP

---

### WORK DESCRIPTION

Injection molding machine setters set up and tend machines that transform plastic compounds into a wide variety of consumer goods such as toys, tubing and auto parts. They install plastic injection molds on the molding machine; make necessary connections of the electrical, hydraulic and cooling systems to the mold; insure that the correct plastic material, plastic melt temperatures, shot size, injection speed and pressures are set; and cycle the machine and adjust the molding parameters until acceptable parts are produced.

### WORKING CONDITIONS

Injection molding machine setters work in a typical factory shop setting and use protective equipment such as safety belts and protective glasses to avoid common hazards. This highly technical apprenticeship program requires a thorough understanding of the material taught in this program.

### TRAINING

- 4-year training program
- 7,744 hours on-the-job learning
- 576 hours paid related instruction
- Additional related instruction may be required

Units of instruction include electricity, hydraulics and pneumatics; statistical process control; plastic mold design and blueprint reading; technical mathematics; basic tool room machine shop operations; and an overview of many of the plastic molding processes other than injection molding.

### APPLICATION REQUIREMENTS

Entry requirements vary by employer

High school diploma or equivalent

Applicants apply directly to participating employers

# MACHINIST APPRENTICESHIP

---

## WORK DESCRIPTION

Machinists are skilled workers who can transform a block of metal into an intricate part such as a gear or piston that meets precise specification. They set up and operate a variety of machine tools to produce precision parts and instruments. Many machines are computer numerically controlled (CNC), which means the machinist uses computers to direct the machine's operations.

## WORKING CONDITIONS

Most machine shops are well lighted and ventilated. Machinists wear protective equipment such as safety glasses to shield against bits of flying metal and earplugs to protect against machinery noise. They may stand most of the day and may lift moderately heavy work pieces.

## TRAINING

- 4-year training program
- 7,888 hours on-the-job learning
- 432 hours paid related instruction
- Additional related instruction may be required

The apprentice will learn the theory and skills to operate all the basic machinery found in a well-equipped machine shop, including lathes, drilling machines, metal cutting saws, vertical and horizontal milling machines, and surface and cylindrical grinders.

## APPLICATION REQUIREMENTS

Entry requirements vary by employer

High school diploma or equivalent

Applicants apply directly to participating employers

## MAINTENANCE MECHANIC AND MILLWRIGHT APPRENTICESHIP

---

### WORK DESCRIPTION

Maintenance mechanics and millwrights install, dismantle, or move machinery and heavy equipment according to layout plans, blueprints, or other drawings. They keep machines, mechanical equipment, or the structure of an establishment in repair. Duties may involve pipefitting; boiler making; insulating; welding; machining; carpentry; repairing electrical or mechanical equipment; installing; aligning; and balancing new equipment; and repairing buildings, floors, or stairs.

### WORKING CONDITIONS

Maintenance mechanics and millwrights employed in manufacturing often work in a typical factory shop setting and use protective equipment to avoid common hazards such as safety belts, protective glasses and hard hats.

### TRAINING

- 4-year training program
- 7,600 hours on-the-job learning
- 576 hours paid related instruction
- Additional related instruction may be required

Classroom instruction is given in mathematics, blueprint reading, hydraulics, electricity, computers and electronics.

### APPLICATION REQUIREMENTS

Applicants must be at least 18 years of age

Entry requirements vary by employer

High school diploma or equivalent

Physically able to perform trade

Applicants apply directly to participating employers

# METAL FABRICATOR APPRENTICESHIP

---

## WORK DESCRIPTION

Metal fabricators make initial shapes or models to produce molds, forms and dies which are used to mass produce the components of virtually every manufactured metal product. They fabricate, lay out, position, align, and fit parts of structural metal products such as frameworks or shells for machinery, ovens, stacks and metal parts for buildings and bridges, according to job order or blueprints.

## WORKING CONDITIONS

Most metal fabricators work in factories that are clean, well lit and well ventilated. They wear protective equipment such as safety glasses and earplugs to protect against flying metal particles and noise.

## TRAINING

- 4-year training program
- 7,724 -7,920 hours on-the-job learning
- 400-576 hours of related instruction
- Additional related instruction may be required

Classroom studies include blueprint reading, mathematics and metallurgy.

## APPLICATION REQUIREMENTS

Entry requirements vary by employer

High school diploma or equivalent

Physically able to perform trade

Applicants apply directly to participating employers

## MOLD MAKER APPRENTICESHIP

---

### WORK DESCRIPTION

Mold makers set up and operate machines such as lathes, milling and engraving machines, and jig borers to make working models of metal or plastic objects. They lay out, machine, fit, assemble, and finish metal parts to make and repair dies for diecasting of metal products and metal molds for injection or compression molding of plastic or glass products.

### WORKING CONDITIONS

Mold makers usually work in toolrooms. These areas are quieter than the production floor because there are fewer machines in use at one time. They wear protective equipment such as safety glasses to shield against bits of flying metal and earplugs to protect against noise. They spend much of the day on their feet and may do moderately heavy lifting.

### TRAINING

- 5-year training program
- 9,824 hours on-the-job learning
- 576 hours paid related instruction
- Additional related instruction may be required

Class work consists of mathematics, mechanical drawing, tool designing, tool programming, and blueprint reading.

### APPLICATION REQUIREMENTS

Entry requirements vary by employer

High school diploma or equivalent

Physically able to perform trade

Applicants apply directly to participating employers

# TOOL & DIE MAKER APPRENTICESHIP

---

## WORK DESCRIPTION

Tool and die makers analyze specifications, lay out metal stock, set up and operate machine tools, and fit and assemble parts to make and repair dies, cutting tools, jigs, fixtures (devices that hold metal while it is shaped, stamped or drilled), gauges, and machinist's hand tools. Die makers construct metal forms (dies) to shape metal in stamping and forging operations.

## WORKING CONDITIONS

Tool and die makers usually work in toolrooms. These areas are quieter than the production floor because there are fewer machines in use at one time. They wear protective equipment, such as safety glasses to shield against bits of flying metal and earplugs to protect against noise. They spend much of the day on their feet and may do moderately heavy lifting.

## TRAINING

- 5-year training program
- 9,824 hours on-the-job learning
- 576 hours paid related instruction
- Additional related instruction may be required

Class work usually consists of mathematics, mechanical drawing, tool designing, tool programming, and blueprint reading.

## APPLICATION REQUIREMENTS

Entry requirements vary by employer

High school diploma or equivalent

Physically able to perform trade

Applicants apply directly to participating employers



## BARBER/COSMETOLOGIST APPRENTICESHIP

---

### WORK DESCRIPTION

Barber/Cosmetologist apprentices train in a licensed salon under a licensed professional, learning the skills of cutting, styling, coloring, permanent waving or straightening hair. In addition, cosmetologists give manicures, pedicures, scalp and facial treatments; provide make-up analysis; and clean and style wigs and hairpieces. Continually changing fashion trends affect hairstyles and techniques, requiring successful professionals to stay up to date in creating a total look for today's men, women, and children.

### WORKING CONDITIONS

Barber/Cosmetologists generally work in clean, pleasant salons with good lighting and ventilation. This occupation also requires strong interpersonal communication skills and standing for long periods. Work hours usually include evenings and weekends.

### TRAINING

- 2-year training program
- 3,712 hours on-the-job learning
- 288 hours paid related instruction

The theory training in the classroom focuses on the chemistry involved with each subject, along with proper sanitation and safety procedures. After completing the program, apprentices must pass the state test to be licensed as a practitioner.

### APPLICATION REQUIREMENTS

Entry requirements vary by employer

High school diploma or equivalent is recommended

Applicants apply directly to a licensed, full service salon

The salon must be in business for at least one year

*Applications are available from the local Bureau of Apprenticeship Standards representative or the Department of Regulation and Licensing, which is online at <http://drl.wi.gov>*

## COOK/CHEF APPRENTICESHIP

---

### WORK DESCRIPTION

Cooks and chefs prepare, season, and cook soups, gravies, salads, meats, vegetables, desserts and other foodstuffs for consumption in restaurants, hotels, and other institutions. They operate ovens, broilers, grills, roasters, steam kettles and other equipment used in the cookery of food. They measure and mix ingredients according to recipe, using a variety of kitchen utensils and equipment such as blenders, mixers, grinders, slicers and tenderizers.

### WORKING CONDITIONS

Cooks are employed in hotels, restaurants, clubs and other food establishments, which offer a full food menu. Workers must withstand the pressure of working in close quarters, standing long periods of time, lifting heavy pots and kettles and working near hot ovens and grills. Work hours may include late evenings, holidays and weekends.

### TRAINING

- 2 to 3 year training program
- 4,000 – 5,840 hours on-the-job learning
- 400 – 576 hours paid related instruction
- Additional related instruction may be required

Apprentices are eligible to join the American Culinary Federation (National Chef's Association) as a registered apprentice.

### APPLICATION REQUIREMENTS

Entry requirements vary by employer

Applicants apply directly to participating restaurant or hotel

# CORRECTIONAL OFFICER APPRENTICESHIP

---

## WORK DESCRIPTION

Correctional officers guard inmates in penal or rehabilitative institutions in accordance with established regulations and procedures. They may guard prisoners in transit between jail, courtroom, prison, or other points.

## WORKING CONDITIONS

Correctional officers work in correctional institutions, which can be stressful and hazardous. They may work indoors or outdoors, depending upon their specific duties. Some indoor areas may be well lighted, heated and ventilated, but others are overcrowded, hot and noisy. Correctional officers usually work an 8-hour day, 5 days a week, on rotating shifts. Prison security must be provided around the clock.

## TRAINING

- 2-year program
- 3,760 hours on-the-job learning
- 400 hours paid related instruction

Related instruction covers firearms training, fire suppression, inmate control, communications, administrative rules and safety.

## APPLICATION REQUIREMENTS

Applicants must be at least 18 years of age

Valid driver's license is required

Applicants cannot have a felony conviction or domestic violence conviction

Applicants must pass a reading and reasoning skills aptitude test

Pass civil service exam

*Applications are available from the Wisconsin Department of Corrections at (877) 234-0086.*

## ELECTRIC LINE WORKER APPRENTICESHIP

---

### WORK DESCRIPTION

Electric line workers install and repair cables or wires used in electrical power or distribution systems. They erect poles and light or heavy duty transmission towers. They locate line trouble, climb poles, use hot line tools, and operate and maintain substations.

### WORKING CONDITIONS

Because electric cables are strung from utility poles or are underground, electric line workers must climb and lift or work in stooped and cramped positions. They usually work outdoors in all kinds of weather and are subject to 24-hour call. Most usually work a 40-hour week, but when severe weather damages power lines, they may work long and irregular hours to restore service.

### TRAINING

- 4-year training program
- 7,360 hours on-the-job learning
- 640 hours paid related instruction
- Additional related instruction may be required

Classroom instruction is offered in weekly blocks staggered throughout the year.

### APPLICATION REQUIREMENTS

High school diploma or equivalent

Valid driver's license or reliable transportation

Commercial driver's license (CDL) with an "A" endorsement or the ability to get the CDL

Most employers test applicants for basic verbal, arithmetic and abstract reasoning skills

Some employers test for physical ability such as balance, coordination, strength and mechanical aptitude

Applicants apply directly to the electric utility

May be required to take a drug and alcohol test at time of selection

# FIRE SERVICE APPRENTICESHIP

---

## WORK DESCRIPTION

Firefighters control and extinguish fires or respond to emergency situations where life, property, or the environment is at risk. Duties may include fire prevention, emergency medical service, hazardous material response, search and rescue, and disaster management.

## WORKING CONDITIONS

Firefighters spend much of their time at fire stations, which usually have facilities for dining and sleeping. When an alarm comes in, firefighters must respond rapidly, regardless of the weather or hour. They spend long periods on their feet, sometimes in adverse weather, tending to fires, medical emergencies, hazardous materials incidents and other emergencies. They wear all kinds of protective gear, which can be very heavy. Work hours are longer and vary more widely than hours of most other workers.

## TRAINING

- 3 to 4 year training program
- 400 hours paid related instruction
- Additional related instruction may be required

Related instruction covers subjects such as firefighting techniques and equipment, chemical hazards associated with various combustible building materials, emergency medical procedures, fire prevention and safety.

## APPLICATION REQUIREMENTS

Minimum qualifications depend on the hiring authority

High school diploma or equivalent

Meet required norms on aptitude test (if required)

Physically able to perform trade

Some require completion of a two-year program at a technical college. In many cases, applicants will have to take a civil service examination.

Applicants apply directly to participating fire departments

## FUNERAL DIRECTOR APPRENTICESHIP

---

### WORK DESCRIPTION

Funeral directors perform various tasks to arrange and direct funeral services such as coordinating transportation of the body to the mortuary for embalming, interviewing family or other authorized person to arrange details, procuring officials for religious rites and providing transportation for mourners. They prepare bodies for internment in conformity with legal requirements.

### WORKING CONDITIONS

Most funeral directors work in clean, well-lighted funeral homes. Funeral directors often work long, irregular hours. This occupation also requires strong interpersonal communication skills and standing for long periods.

### TRAINING

- 9 months or more of instruction with a mortuary school
- One year on-the-job learning which may be served before, during or after mortuary school

A State board licensing examination is required at the end of training.

### APPLICATION REQUIREMENTS

Applicants must be at least 18 years of age

High school diploma or equivalent

Applicants may not have an arrest or conviction record

Complete two academic years of instruction in a recognized college or university before apprenticeship application

Apprenticeships must be completed under an experienced and licensed funeral director or embalmer

*Applications are available at the Department of Regulation and Licensing, which is online at <http://drl.wi.gov>*

# MAINTENANCE TECHNICIAN

---

## WORK DESCRIPTION

Maintenance technicians work in two fields: Industrial electrician and maintenance mechanic/millwright. These two trades are combined in the maintenance technician trade. These apprentices work with many different types of electrical equipment. They may also modify or install electrical equipment like motors, transformers, generators, machine controls and lighting systems in industrial commercial and public establishments. They are also responsible for periodic inspection of electrical equipment to locate and repair defects before breakdowns occur. They also install, dismantle or move machinery and heavy equipment according to layout plans, blueprints, or other drawings. They keep machines, mechanical equipment or the structure of an establishment in repair. They conduct periodic inspections or mechanical equipment to locate and repair defects before breakdowns occur. Other duties may include pipefitting; boiler work; insulating; welding; machining; carpentry; installing, aligning and balancing new equipment; repairing buildings, floors or stairs.

## WORKING CONDITIONS

Maintenance technicians employed in manufacturing often work in a typical factory shop setting and use protective equipment such as safety belts, protective glasses and hard hats to avoid common hazards. They must be able to stand for long periods of time and work in cramped or uncomfortable positions.

## TRAINING

- 5-year training program
- 9,136 hours of on-the-job learning
- 864 hours of related instruction
- Additional related instruction may be required

Classroom studies include blueprint reading; mathematics; hydraulics; electricity; computers; electronics; local, state and national electrical codes pertaining to the industrial application; and safety procedures and equipment.

## APPLICATION REQUIREMENTS

Entry requirements vary by employer

Applicants must be at least 18 years of age

High school diploma or equivalent

Physically able to perform the trade

Applicants apply directly to participating employers

## METERING TECHNICIAN

---

### WORK DESCRIPTION

Metering technicians install and audit electric meters. Disconnect/reconnect meters. Respond to trouble calls. Troubleshoot and test meters. Verify equipment security, investigate power diversions and illegal taps, collect physical evidence of illegal taps and maintain chain of evidence. Respond to high-bill complaints. Maintain inventories of supplies and document work with written reports.

### WORKING CONDITIONS

Metering technicians often work in stooped and cramped positions. They usually work outdoors in all kinds of weather. Most usually work a 40-hour week, but sometimes work long and irregular hours to restore service to and from meters.

### TRAINING

- 3-year apprenticeship
- 5760 hours of on-the-job learning
- 480 hours of paid related instruction
- Additional related instruction may be required

Classroom instruction is offered in weekly blocks staggered throughout the year.

### APPLICATION REQUIREMENTS

High school diploma or equivalent

Valid driver's license or reliable transportation

Commercial Driver's License (CDL) with an "A" endorsement of the ability to get the CDL

Must be able to physically perform the work of the trade

Most employers test applicants for basic verbal, arithmetic and abstract reasoning skills

May be required to undergo drug or alcohol testing at time of selection as an apprentice

Applicants apply directly to the electric utility



DIRECTORY OF BUREAU OF  
APPRENTICESHIP STANDARDS (BAS)  
FIELD REPRESENTATIVES

---

See [www.wisconsinapprenticeship.org](http://www.wisconsinapprenticeship.org) for a current district email address

BAS AREA #2 CHIPPEWA FALLS

770 Scheidler Rd.  
Chippewa Falls, WI 54729  
(715) 738-3853  
Toll Free (800) 511-9095

BAS AREA #2 CHIPPEWA FALLS

Ashland, Barron, Bayfield, Burnett, Chippewa, Clark, Douglas, Dunn, Eau Claire, Iron, Pepin, Pierce, Polk, Rusk, Sawyer, St. Croix and Washburn Counties

BAS AREA #3 LA CROSSE

402 N. 8th St.  
La Crosse, WI 54601  
(608) 785-9176

BAS AREA #3 LA CROSSE

Buffalo, Crawford, Grant, Iowa, Jackson, Juneau, La Crosse, Lafayette, Monroe, Richland, Trempealeau and Vernon Counties

BAS AREA #4 WAUSAU

c/o Workforce Development Center  
364 Grand Ave.  
Wausau, WI 54403  
(715) 261-8754

BAS AREA #4 WAUSAU

Adams, Forest, Langlade, Lincoln, Marathon, Oneida, Portage, Price, Taylor, Vilas and Wood Counties

## BAS AREA #5 MADISON NORTH

c/o Madison Area Technical College  
2125 Commercial Ave.  
Madison, WI 53704  
(608) 246-3887

## BAS AREA #5 MADISON NORTH

Columbia, Green Lake, Jefferson, Marquette and Sauk  
Counties

## BAS AREA #6 MADISON SOUTH

c/o Madison Area Technical College  
2125 Commercial Ave.  
Madison, WI 53704  
(608) 246-7900

## BAS AREA #6 MADISON SOUTH

Dane, Green, and Rock Counties

## BAS AREA #7 GREEN BAY

c/o Northeast Wisconsin Technical College  
P.O. Box 19042  
2740 West Mason, Room AP 107  
Green Bay, WI 54307-9042  
(920) 492-5618

## BAS AREA #7 GREEN BAY

Brown, Door, Florence, Kewaunee, Marinette, Menominee,  
Oconto, Shawano Counties, Waupaca and Waushara

## BAS AREA #8 APPLETON

c/o Fox Valley Technical College  
P.O. Box 2277  
1825 North Bluemound Dr.  
Appleton, WI 54912-2277  
(920) 832-5303

## BAS AREA #8 APPLETON NORTH

Calumet, Outagamie and Winnebago Counties

BAS AREA #9 LAKESHORE

c/o Lakeshore Technical College  
1290 North Ave. Room A208  
Cleveland, WI 53015  
(920) 693-1102

BAS AREA #9 LAKESHORE

Fond du Lac, Manitowoc and Sheboygan Counties

BAS AREA #10 MORAINES PARK

c/o Moraine Park Technical College  
2151 North Main St.  
West Bend, WI 53090  
(262) 335-5849

BAS AREA #10 MORAINES PARK

Dodge, Ozaukee and Washington Counties

BAS AREA #11 MILWAUKEE

c/o Milwaukee Area Technical College-South Campus  
6665 South Howell Ave.  
Oak Creek, WI 53154  
(414) 768-7190

BAS AREA #11 MILWAUKEE

Milwaukee County

BAS AREA #12 WAUKESHA

Workforce Development Center  
892 Main St., Ste. J  
Pewaukee, WI 53072  
(262) 695-7778

BAS AREA #12 WAUKESHA

Waukesha County

## BAS AREA #13 RACINE/KENOSHA

c/o Gateway Technical College  
3520 30th Ave. Rm C103  
Kenosha, WI 53144  
(262) 564-3210

## BAS AREA #13 RACINE/KENOSHA

Kenosha, Racine and Walworth Counties

## BAS AREA #16 MILWAUKEE

State Office Building  
819 North 6th St., Rm. 850  
Milwaukee, WI 53203  
(414) 768-7190

## BAS AREA #16 MILWAUKEE

Barber/cosmetology programs in Milwaukee and  
Waukesha Counties

## BAS ADMINISTRATIVE OFFICE

P.O. Box 7972  
Madison, WI 53707  
(608) 266-3332

## U.S. DEPARTMENT OF LABOR OFFICE OF APPRENTICESHIP

740 Regent St., Ste. 104  
Madison, WI 53715  
(608) 441-5378

WISCONSIN TECHNICAL  
COLLEGE SYSTEM  
APPRENTICESHIP CONTACTS

---

(• signifies apprenticeship-related contact number)

BLACKHAWK TECHNICAL COLLEGE

1740 Hwy 14 W  
Janesville, WI 53545  
• (608) 743-4472  
(608) 743-4471

CHIPPEWA VALLEY TECHNICAL COLLEGE

620 West Clairemont Ave.  
Eau Claire, WI 54701-6162  
(715) 874-4602  
• (715) 852-1394

FOX VALLEY TECHNICAL COLLEGE

P.O. Box 2277  
Appleton, WI 54912-2277  
• (920) 735-5785  
(920) 735-5778  
  
Barber/cosmetology program  
(920) 236-6132

## GATEWAY TECHNICAL COLLEGE

3520 30th Ave.  
Kenosha, WI 53144-1690  
• (262) 564-2954  
(262) 564-2990

## LAKESHORE TECHNICAL COLLEGE

1290 North Ave.  
Cleveland, WI 53015  
• (920) 693-1238  
(920) 693-1279

## MADISON AREA TECHNICAL COLLEGE

2125 Commercial Ave.  
Madison, WI 53704  
(608) 246-5202  
• (608) 246-5299

## MID-STATE TECHNICAL COLLEGE

500 32nd St. N.  
Wisconsin Rapids, WI 54494  
(715) 422-5375  
• (715) 389-7045

## MILWAUKEE AREA TECHNICAL COLLEGE

700 West State St.  
Milwaukee, WI 53233-1443  
• (414) 571-4743  
(414) 297-7013

MORAINES PARK TECHNICAL COLLEGE

2151 North Main St.  
West Bend, WI 53095  
• (262) 335-5841  
(262) 335-5840

NICOLET AREA TECHNICAL COLLEGE

P.O. Box 518  
Rhineland, WI 54501-0518  
• (715) 365-4565  
(715) 365-4926

NORTHCENTRAL TECHNICAL COLLEGE

1000 West Campus Dr.  
Wausau, WI 54401  
• (715) 675-3331, Ext. 4736  
(715) 675-3331, Ext. 1242

NORTHEAST WISCONSIN  
TECHNICAL COLLEGE

P.O. Box 19042  
Green Bay, WI 54307-9042  
• (920) 498-5704  
(920) 498-5682

## SOUTHWEST WISCONSIN TECHNICAL COLLEGE

1800 Bronson Blvd.  
Fennimore, WI 53809-9989  
• (608) 822-2303  
(608) 822-2720

## WAUKESHA COUNTY AREA TECHNICAL COLLEGE

800 Main St.  
Pewaukee, WI 53072  
• (262) 691-5543  
(262) 691-5160

Construction trades (262) 691-5543

Industrial occupations (262) 691-5345

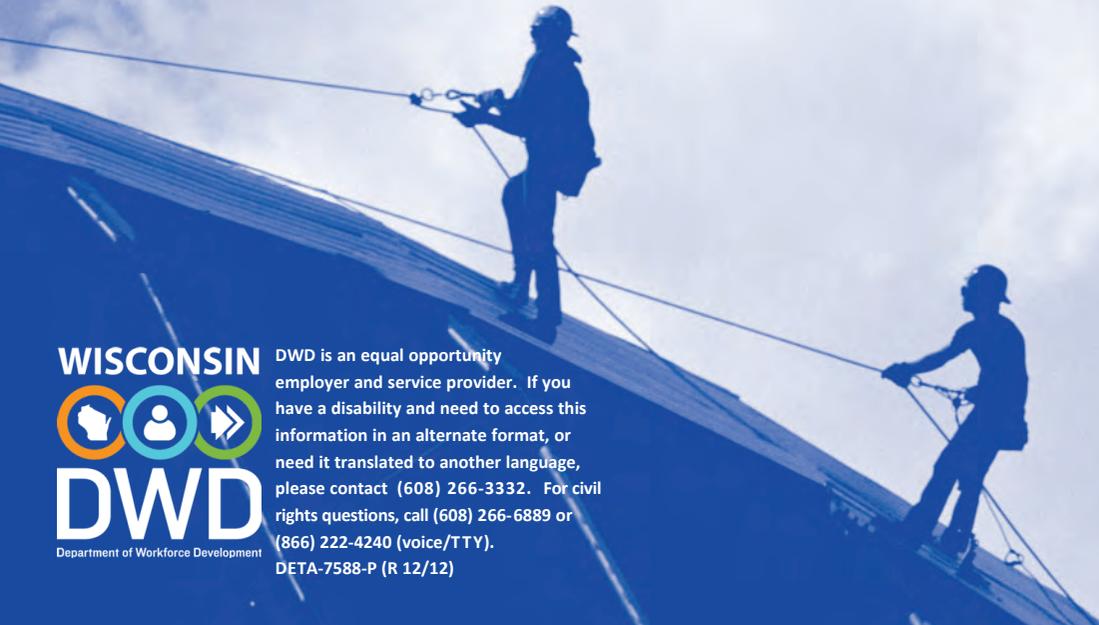
Service occupations  
(Barber/cosmetology program) (262) 691-5258

## WESTERN TECHNICAL COLLEGE

P.O. Box C-908  
La Crosse, WI 54602-0908  
(608) 785-9172  
• (608)-785-9088

## WISCONSIN INDIANHEAD TECHNICAL COLLEGE

1900 College Dr.  
Rice Lake, WI 54868  
• (715) 234-7082, Ext. 5113  
(715) 234-7082, Ext. 5289



DWD is an equal opportunity employer and service provider. If you have a disability and need to access this information in an alternate format, or need it translated to another language, please contact (608) 266-3332. For civil rights questions, call (608) 266-6889 or (866) 222-4240 (voice/TTY). DETA-7588-P (R 12/12)