

Types of Apprenticeship Programs in Wayne County

Apprenticeship is a combination of on-the-job training and related instruction in which workers learn the practical and theoretical aspects of a highly skilled occupation. Apprenticeship programs can be sponsored by individual employers, joint employer and labor groups, and/or employer associations. Apprentices start working from day one with incremental wage increases as they become more proficient on the job. Apprenticeships range from one to six years, but the majority are four years in length. Apprenticeship programs benefit student participants by providing:

- **Improved skills and competencies** that meet the specific needs of the employer
- **Incremental wage increases** as their skills improve
- **On-the-job training** and occupation focused education
- **Career advancement**
- **Industry issued, nationally recognized credentials**
- **Articulation agreements** between certain apprenticeship training programs and 2- and 4-year colleges that create opportunities for college credit and future degrees

Apprenticeship programs for some professions can be earned through union sponsored programs throughout Wayne County. The following information will include the job titles, description of the work (Scope of the Work) followed by a listing of available programming, contact information, length of the program and requirements to apply.

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Job Title

Scope of the Work

Boilermaker

Construction and repair of utility plants, chemical plants, automotive plants, refineries, paper and steel manufacturing facilities, ore processing and mine plants throughout the State of Michigan.

Bricklayers & Restoration Workers

Bricklayers construct walls, partitions, fireplaces, chimneys and other structures from brick. They use other masonry materials such as concrete, cinder or gypsum block;

pre-cast panels made of brick, cement, tile, stone, marble, structural tile, or terra-cotta. They also install the brick linings of industrial kilns and furnaces and masonry restoration and repair.

Carpenters

Carpenters erect a building's wood frame, including subflooring, sheathing, partitions, floor joists, studs and rafters. They install heavy timbers, build forms, erect scaffolding and install molding, wood paneling, cabinets, window sashes, door frames, doors, hardware, build stairs, and lay floors. In addition, as part of their job, carpenters saw, fit and assemble plywood, wallboard and many other materials.

Carpenters/Floor Layers

The installation of carpeting, hardwood flooring, soft tiles and linoleum type products made of vinyl and rubber is the work of the floor layers. This is a specialized occupation which is attracting many young men and women. Floor layers install a wide range of decorative floor coverings in commercial buildings, hotels, homes and churches.

Carpenters/Lathers

Involves the installation of all sorts of modern equipment and material in commercial buildings, such as acoustical ceilings, raised floors for computers, metal framing, wall partitions, and office furniture systems.

Cement Masons

The principal work of Cement Masons is finishing the exposed concrete surfaces on many types of construction projects. These projects range from small jobs, such as the finishing of patios, floors and sidewalks, to work on dams, concrete highways, foundations, walls of buildings, and airport runways.

Construction Craft Laborers

Laborers must have common knowledge of all work performed by building tradespeople, for they are the tenders or helpers in the industry. They are called up to operate and maintain power tools such as a chain saw, tamping machine, concrete vibrator, chipping hammer, cutting and burning demolition, mixing for and tending of bricklayers and plasterers. Laborers work jurisdiction is divided into four general categories:

- Commercial – the laborer may tend mason, place concrete, work with operators in site preparation, tend carpenters, cleanup site.
- Highway – May lay sewer and water mains, check road grade for operators, place concrete and asphalt, break and remove old concrete.
- Underground – Works as a pipe layer, tailman, top man while installing sewer, water and gas lines.

- Industrial Construction – involves all new construction, remodeling and demolition in factory type buildings.

Working Conditions: Laborers are exposed to all weather conditions. Sometimes they are called upon to work at heights and also depths, sometimes hundreds of feet underground on subways, tunnels and storage reservoirs. In their work, there is much bending, walking, standing, lifting and carrying.

Drywall Finishers/Tapers

Drywall finishers apply drywall taping compounds and tape to wall surfaces, making a finished wall in preparation for painters, paperhangers, carpenters and tile layers. The finishers use hand tools as well as power tools to apply the drywall compounds and tape to the surface.

Electrical Workers

Electrical Workers lay-out, assemble, install and test electrical fixtures, apparatus, high voltage, medium voltage and low voltage electrical systems. They also install and connect electrical machinery, equipment, controls, signal and communication systems, fire alarm, instrumentation, security and Audio Visual systems, switches, conduits, circuit breakers, wires, lights and other electrical components.

Elevator Constructors

Elevator constructors handle the installation, repair, and maintenance of elevators, escalators, moving walks, dumbwaiters, shuttles, temporary elevators, private residence elevators, man-lifts and all types of handicap lifts and stair climbers.

Glaziers and Glassworkers

Glaziers install glass and aluminum building components in new construction, residential and remodeling projects.

Heat and Frost Insulators

Job includes application of insulation, wrapping pipes and tanks for heat, frost and condensation insulation in industrial settings, such as factories and power plants.

Iron Workers

Iron Workers are employed in five segments of the trade, working in commercial, industrial and residential areas:

- Structural Iron Workers. Assemble, erect and install fabricated iron sections using bolts and by welding.

- Ornamental Iron Workers. Install metal stairways, cat walks, gratings, iron ladders, metal window sashes, glass, curtain walls, window walls, doors, gates, fences, screens, elevator fronts, platforms and railings. They also install decorative iron work.
- Reinforcing Iron Workers. Employed wherever reinforced concrete is used in the construction of such things as buildings, freeways, bridges and drainage channels. Rod busters fabricate and place steel bars in concrete forms to reinforce concrete structures.
- Special Building Erectors. Erect pre-engineered buildings. A pre-engineered building has structural members that are factory built and standardized for ease of construction from one building to another.
- Rigging and Machinery Movers. Load, unload, move and set machinery, equipment and material using cranes, derricks, forklifts or by hand, utilizing a series of blocks and tackle. Riggers have knowledge of fiber line rope, hooks, skids, rollers, proper hand signals and hoisting equipment.

Millwrights

The Millwright is a construction mechanic whose skills are in the areas of moving, leveling, aligning and installing large machinery. Also incorporated into the Millwright's scope is rigging, erecting, splicing of belts, cleaning, lubricating and replacing gears, and fabrication and installation of conveyor systems, turbines and generators, automated systems and welding. Millwrights also repair all of the above systems, as well as install them.

Movers

Moving Helpers assist the Crew Leader with loading, unloading, and transportation of household goods and office furniture.

Operating Engineer

Operating Engineers operate and maintain heavy and portable construction equipment. Work includes operation and maintenance of construction equipment, such as bulldozers, graders, cranes, scrapers, loaders, asphalt plants, rollers and pumps, etc., on all types of projects. The Operating Engineer is generally employed in the building of highways, airports, buildings, sewers, waterways and stadiums.

Outside Lineman

Outside Linemen primarily do the important work of installing and maintaining the overhead distribution and transmission lines that move electrical power from power

plants to local consumers such as businesses, homes and factories. They also install and maintain poles and towers, underground systems and sub-stations that are required to power communities. Outside Linemen are often climbing poles or working in bucket trucks, installing or repairing electrical power lines out-of-doors.

Painters

Painters prepare the surfaces of buildings and other structures and then apply paint, varnish, enamel, lacquer, and similar materials to these surfaces. A painter must be skilled in handling brushes and other painting tools in order to apply paint thoroughly, uniformly and rapidly to any type of surface.

Pipefitters, Refrigeration and Air Conditioning Pipefitters install both high and low-pressure pipes that carry hot water, steam and other liquids and gases, especially those in industrial and commercial buildings.

Plasterers

Plasterers finish interior walls and ceilings by using a one, two or three-coat system over interior lathe. They install insulated finish systems, apply stucco to exterior walls and ceilings and soundproof and fireproof buildings. Plasterers also create specialized molds and often have a major role in the renovation of historic buildings.

Plumbers

Plumbers alter, repair, maintain and install plumbing systems, plumbing fixtures, appliances, water distribution and waste disposal systems. Plumbers also install medical gas systems in health care facilities

Roofers and Waterproofers

A commercial roofer works on all types of commercial buildings, from the small corner store to huge automotive plants, and buildings ranging in height from one story to the tallest 100 story skyscrapers. The commercial roofer installs a variety of roofing materials, generally on flat roofs. The roofs are generally made up of hot tar, hot asphalt, modified bitumen, or rubber membrane. You need to be the kind of person who works hard, and has good ethics, including showing up for work on time, maintaining a positive attitude, and the ability to work as part of a team. The tools and clothing required are very basic.

Sheet Metal Workers

Sheet Metal Workers make, install and maintain air-conditioning, heating, ventilation and pollution control duct systems; roofs, siding; rain gutters and downspouts; skylights; restaurant equipment; outdoor signs; and many other building parts and

products made from metal sheets. They also work with fiberglass and plastic materials. Although some workers specialize in fabrication, installation of maintenance, most do all three jobs. Sheet Metal Workers also fabricate metal used in paint ovens and spray booths.

Sprinkler Fitters

Sprinkler Fitters install fire suppression systems of all types including wet and dry, carbon dioxide and foam. They work in both commercial and residential buildings. Work includes unloading, handling and installing piping, tubing and related materials. Sprinkler Fitters install overhead and underground water mains, fire hydrants and hydrant mains, standpipes and hose connections, sprinkler tank heaters, air lines and thermal systems connected to sprinkler and alarm systems. Fire suppression systems include Tri-Water, CO2, Halon, Dry Chemicals, Foam and others.

Tile, Marble and Terrazzo Masons

Tile layers construct walls, partitions, fireplaces, swimming pools and other structures from tile, marble and terrazzo. They use other materials such as cement, epoxy, tile, stone, marble, terrazzo and terra cotta.

www.miroad2work.org

There are four primary information websites on Apprenticeship Programs in Michigan:

www.miroad2work.org

www.realapprenticeship.com

www.michiganconstruction.com

www.mynextmove.org