

Community College	Program Name	Occupation Description <sup>2</sup>	Job Outlook <sup>1</sup>		
			Current Number of People Employed in Profession	Average Number of Job Openings per Year	Median Hourly Wage 2005 <sup>3</sup>
Mid Michigan	Certified Nurses Aide	<u>Licensed Practical and Licensed Vocational Nurses (Maternity Nurse)</u> Care for ill, injured, convalescent, or disabled persons in hospitals, nursing homes, clinics, private homes, group homes, and similar institutions. May work under the supervision of a registered nurse. Licensing required. Illustrative Example: Licensed Attendant	17,405	401	\$18.17
	CNC Programmer/Operator	<u>Industrial Engineering Technicians</u> Apply engineering theory and principles to problems of industrial layout or manufacturing production, usually under the direction of engineering staff. May study and record time, motion, method, and speed involved in performance of production, maintenance, clerical, and other worker operations for such purposes as establishing standard production rates or improving efficiency. Illustrative Examples: Methods Study Analyst; Quality Control Technician; Time Study Analyst	5,860	113	\$21.70
	Core Masonry Level I	<u>Brickmasons and Blockmasons</u> Lay and bind building materials, such as brick, structural tile, concrete block, cinder block, glass block, and terra-cotta block, with mortar and other substances to construct or repair walls, partitions, arches, sewers, and other structures. Exclude "Stonemasons" (47-2022). Classify installers of mortarless segmental concrete masonry wall units in "Landscaping and Groundskeeping Workers" (37-3011). Illustrative Examples: Adobe Layer; Chimney Builder; Furnace Liner	6,710	131	\$22.85

	<u>Stonemasons</u> Build stone structures, such as piers, walls, and abutments. Lay walks, curbstones, or special types of masonry for vats, tanks, and floors. Illustrative Examples: Granite Setter; Monument Installer; Rock Mason	299	6	\$17.86
	<u>Tile and Marble Setters</u> Apply hard tile, marble, and wood tile to walls, floors, ceilings, and roof decks. Illustrative Examples: Ceramic Tile Installer; Hard Tile Setter; Marble Installer	1,284	33	\$19.60
<b>Core Plumbing Level I</b>	<u>Plumbers, Pipefitters, and Steamfitters</u> Assemble, install, alter, and repair pipelines or pipe systems that carry water, steam, air, or other liquids or gases. May install heating and cooling equipment and mechanical control systems. Illustrative Examples: Gas Line Installer; Hot Water Heater Installer; Sprinkling System Installer.	16,783	369	\$24.53
	<u>Pipelayers</u> Lay pipe for storm or sanitation sewers, drains, and water mains. Perform any combination of the following tasks: grade trenches or culverts, position pipe, or seal joints. Exclude "Welders, Cutters, Solderers, and Brazers" (51-4121). Illustrative Examples: Trench Pipe Layer; Pipe Liner; Sewer Connector	752	21	\$17.23
	<u>Septic Tank Servicers and Sewer Pipe Cleaners</u> Clean and repair septic tanks, sewer lines, or drains. May patch walls and partitions of tank, replace damaged drain tile, or repair breaks in underground piping. Illustrative Examples: Sewage Screen Operator; Septic Tank Cleaner; Electric Sewer Cleaning Machine Operator	845	26	\$14.74

<b>Criminal Justice</b>	<u>Correctional Officers and Jailers</u> Guard inmates in penal or rehabilitative institution in accordance with established regulations and procedures. May guard prisoners in transit between jail, courtroom, prison, or other point. Include deputy sheriffs and police who spend the majority of their time guarding prisoners in correctional institutions. Illustrative Examples: Convict Guard; Custodial Officer; Prison Guard	12,217	240	\$19.23
<b>Early Childhood Education</b>	<u>Kindergarten Teachers, Except Special Education</u> Teach elemental natural and social science, personal hygiene, music, art, and literature to children from 4 to 6 years old. Promote physical, mental, and social development. May be required to hold State certification. Exclude "Special Education Teachers" (25-2041 through 25-2043).	5,584	126 n/a	
	<u>Preschool Teachers, Except Special Education</u> (Day Care Teacher, Nursery School Teacher) Instruct children (normally up to 5 years of age) in activities designed to promote social, physical, and intellectual growth needed for primary school in preschool, day care center, or other child development facility. May be required to hold State certification. Exclude "Child Care Workers" (39-9011) and "Special Education Teachers" (25-2041 through 25-2043). Illustrative Examples: Head Start Teacher; Childhood Development Teacher	9,294	171	\$12.09
<b>Electrical</b>	<u>Electricians</u> Install, maintain, and repair electrical wiring, equipment, and fixtures. Ensure that work is in accordance with relevant codes. May install or service street lights, intercom systems, or electrical control systems. Exclude "Security and Fire Alarm Systems Installers" (49-2098). Illustrative Examples: Electrical Sign Servicer; House Wirer; Chief Electrician	24,018	445	\$28.13

	<p><u>Helpers--Electricians</u>  Help electricians by performing duties of lesser skill. Duties include using, supplying or holding materials or tools, and cleaning work area and equipment. Exclude apprentice workers and report them with the appropriate skilled construction trade occupation (47-2011 through 47-2221). Exclude construction laborers who do not primarily assist electricians, and classify them under "Construction Laborers" (47-2061). Illustrative Examples: Utilities Ground Worker; Electrician's Assistant</p>	2,155	89	\$14.00
	<p><u>Security and Fire Alarm Systems Installers</u>  Install, program, maintain, and repair security and fire alarm wiring and equipment. Ensure that work is in accordance with relevant codes. Exclude "Electricians" (47-2111) who do a broad range of electrical wiring. Illustrative Examples: Fire Alarm Installer; Burglar Alarm Mechanic</p>	1,102	39	\$18.33
	<p><u>Signal and Track Switch Repairers</u>  Install, inspect, test, maintain, or repair electric gate crossings, signals, signal equipment, track switches, section lines, or intercommunications systems within a railroad system. Illustrative Examples: Signal Mechanic; Signal Maintainer; Third Rail Installer</p>	501	18	n/a
<b>Emergency Medical Technician</b>	<p><u>Ambulance Drivers and Attendants, Except Emergency Medical Technicians</u>  Drive ambulance or assist ambulance driver in transporting sick, injured, or convalescent persons. Assist in lifting patients. Illustrative Example: Patient Carrier</p>	250	5	\$8.71
	<p><u>Emergency Medical Technicians and Paramedics</u>  Assess injuries, administer emergency medical care, and extricate trapped individuals. Transport injured or sick persons to medical facilities. Illustrative Example: E.M.T.</p>	5,909	114	\$12.97

<b>Fluid &amp; Air Power Technology</b>	<u>Engineering Technicians, Except Drafters, All Other</u> All engineering technicians, except drafters, not listed separately. Illustrative Examples: Laser Specialist; Metallurgical Technician; Material Stress Tester	9,885	226	n/a
<b>Heating</b>	<u>Heating, Air Conditioning, and Refrigeration Mechanics and Installers</u> Install or repair heating, central air conditioning, or refrigeration systems, including oil burners, hot-air furnaces, and heating stoves. Illustrative Examples: Furnace Converter; Gas Furnace Installer; Oil Burner Repairer	8,248	158	\$21.23
<b>Heating, Refrig, Air Conditioning</b>	<u>Heating, Air Conditioning, and Refrigeration Mechanics and Installers</u> Install or repair heating, central air conditioning, or refrigeration systems, including oil burners, hot-air furnaces, and heating stoves. Illustrative Examples: Furnace Converter; Gas Furnace Installer; Oil Burner Repairer	8,248	158	\$21.23
<b>Law Enforcement</b>	<u>Bailiffs</u> Maintain order in courts of law. Illustrative Examples: Court Officer; Sergeant at Arms	915	21	\$15.04
	<u>Detectives and Criminal Investigators</u> Conduct investigations related to suspected violations of Federal, State, or local laws to prevent or solve crimes. Exclude "Private Detectives and Investigators" (33-9021). Illustrative Examples: Police Inspector; Deputy United States Marshal; Narcotics Agent	2,334	69	\$28.79
	<u>Police and Sheriff's Patrol Officers</u> Maintain order, enforce laws and ordinances, and protect life and property in an assigned patrol district. Perform combination of following duties: patrol a specific area on foot or in a vehicle; direct traffic; issue traffic summonses; investigate accidents; apprehend and arrest suspects, or serve legal processes of courts. Illustrative Examples: Border Guard; Campus Police; City Constable	19,306	569	\$23.55

	<p><u>Private Detectives and Investigators</u>  Detect occurrences of unlawful acts or infractions of rules in private establishment, or seek, examine, and compile information for client. Illustrative Example: House Detective</p>	1,196	36	\$16.59
<p><b>Licensed Practical Nurse (LPN)</b></p>	<p><u>Registered Nurses</u>  (Nurse Midwife, Nurse Practitioner) Assess patient health problems and needs, develop and implement nursing care plans, and maintain medical records. Administer nursing care to ill, injured, convalescent, or disabled patients. May advise patients on health maintenance and disease prevention or provide case management. Licensing or registration required. Include advance practice nurses such as: nurse practitioners, clinical nurse specialists, certified nurse midwives, and certified registered nurse anesthetists. Advanced practice nursing is practiced by RNs who have specialized formal, post-basic education and who function in highly autonomous and specialized roles. Illustrative Example: Nursing Supervisor</p>	84,361	3,013	\$26.68
<p><b>Machine Tool</b></p>	<p><u>Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic</u>  Set up, operate, or tend machines to saw, cut, shear, slit, punch, crimp, notch, bend, or straighten metal or plastic material. Illustrative Examples: Perforator Operator; Crimping Machine Operator; Four Slide Machine Setter</p> <p><u>Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic</u>  Set up, operate, or tend drilling machines to drill, bore, ream, mill, or countersink metal or plastic work pieces. Illustrative Examples: Drill Press Operator; Jewel Cupping Machine Operator; Reaming Press Operator</p>	20,335	450	\$13.57
		4,280	108	\$14.49

<u>Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic</u> Set up, operate, or tend machines to extrude or draw thermoplastic or metal materials into tubes, rods, hoses, wire, bars, or structural shapes. Illustrative Examples: Draw Bench Operator; Tube Drawer; Wire Drawing Setter	6,482	219	\$12.68
<u>Forging Machine Setters, Operators, and Tenders, Metal and Plastic</u> Set up, operate, or tend forging machines to taper, shape, or form metal or plastic parts. Illustrative Examples: Cold Header Operator; Swager Operator; Drop Hammer Operator	3,196	46	\$14.82
<u>Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic</u> Set up, operate, or tend grinding and related tools that remove excess material or burrs from surfaces, sharpen edges or corners, or buff, hone, or polish metal or plastic work pieces. Illustrative Examples: Barrel Polisher; Jewel Bearing Facer; Metal Filer	8,541	155	\$16.85
<u>Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic</u> Set up, operate, or tend heating equipment, such as heat-treating furnaces, flame-hardening machines, induction machines, soaking pits, or vacuum equipment to temper, harden, anneal, or heat-treat metal or plastic objects. Illustrative Examples: Metal & Plastic Annealer; Metal & Plastic Temperer; Induction Machine Setter	2,209	89	\$14.94
<u>Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic</u> Set up, operate, or tend lathe and turning machines to turn, bore, thread, form, or face metal or plastic materials, such as wire, rod, or bar stock. Illustrative Examples: Gear Cutter; Screw Machine Operator; Threading Machine Setter	5,941	108	\$18.97

<u>Lay-Out Workers, Metal and Plastic</u> Lay out reference points and dimensions on metal or plastic stock or workpieces, such as sheets, plates, tubes, structural shapes, castings, or machine parts, for further processing. Include shipfitters. Illustrative Example: Location and Measurement Technician	350	5	\$25.94
<u>Machinists</u> Set up and operate a variety of machine tools to produce precision parts and instruments. Include precision instrument makers who fabricate, modify, or repair mechanical instruments. May also fabricate and modify parts to make or repair machine tools or maintain industrial machines, applying knowledge of mechanics, shop mathematics, metal properties, layout, and machining procedures. Illustrative Examples: Electrical Instrument Maker; Machine Fitter	28,022	622	\$18.95
<u>Metal Workers and Plastic Workers, All Other</u> All metalworkers and plastic workers not listed separately. Illustrative Examples: Balancing Machine Operator; Film Casting Operator; Nail Making Machine Setter	9,404	213	\$24.31
<u>Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic</u> Set up, operate, or tend milling or planing machines to mill, plane, shape, groove, or profile metal or plastic work pieces. Illustrative Examples: Broaching Machine Operator; Profiler Operator; Scribing Machine Operator	1,789	28	\$16.35
<u>Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic</u> Set up, operate, or tend more than one type of cutting or forming machine tool or robot. Illustrative Examples: Machine Tool Operator; Combination Machine Tool Setter; Metal and Plastic Transfer Machine Operator	8,174	222	\$20.88

	<u>Rolling Machine Setters, Operators, and Tenders, Metal and Plastic</u> Set up, operate, or tend machines to roll steel or plastic forming bends, beads, knurls, rolls, or plate or to flatten, temper, or reduce gauge of material. Illustrative Examples: Forming Roll Operator; Rolling Mill Operator; Tubing Machine Operator	1,954	43	\$15.00
<b>Maintenance Technician</b>	<u>Maintenance and Repair Workers, General</u> (Maintenance Mechanic) Perform work involving the skills of two or more maintenance or craft occupations to keep machines, mechanical equipment, or the structure of an establishment in repair. Duties may involve pipe fitting; boiler making; insulating; welding; machining; carpentry; repairing electrical or mechanical equipment; installing, aligning, and balancing new equipment; and repairing buildings, floors, or stairs. Exclude "Maintenance Workers, Machinery" (49-9043). Illustrative Examples: Building Maintenance Repairer; Trouble Shooting Mechanic; Mechanical Adjuster	46,110	959	\$17.10
<b>Medical Assistant</b>	<u>Medical Assistants</u> (Morgue Attendant, Physician's Aide) Perform administrative and certain clinical duties under the direction of physician. Administrative duties may include scheduling appointments, maintaining medical records, billing, and coding for insurance purposes. Clinical duties may include taking and recording vital signs and medical histories, preparing patients for examination, drawing blood, and administering medications as directed by physician. Exclude "Physician Assistants" (29-1071). Illustrative Example: Ophthalmic Aide	14,681	647	\$12.48
	<u>Medical Equipment Preparers</u> Prepare, sterilize, install, or clean laboratory or healthcare equipment. May perform routine laboratory tasks and operate or inspect equipment.	1,399	38	\$13.17

<b>NCCER Electrical Program Level III</b>	<u>Electric Motor, Power Tool, and Related Repairers</u> Repair, maintain, or install electric motors, wiring, or switches. Illustrative Examples: Armature Winder; Generator Mechanic; Electric Golf Cart Repairer	977	23	\$18.04
<b>NCCER Electrical Program Level IV</b>	<u>Security and Fire Alarm Systems Installers</u> Install, program, maintain, and repair security and fire alarm wiring and equipment. Ensure that work is in accordance with relevant codes. Exclude "Electricians	1,102	39	\$18.33
	<u>Home Appliance Repairers</u> Repair, adjust, or install all types of electric or gas household appliances, such as refrigerators, washers, dryers, and ovens. Illustrative Examples: Window Air Conditioner Mechanic; Vacuum Cleaner Repairer; Washing Machine Installer	1,648	43	\$17.03
<b>Office Information Systems</b>	<u>Executive Secretaries and Administrative Assistants</u> Provide high-level administrative support by conducting research, preparing statistical reports, handling information requests, and performing clerical functions such as preparing correspondence, receiving visitors, arranging conference calls, and scheduling meetings. May also train and supervise lower-level clerical staff. Exclude "Secretaries" (43-6012 through 43-6014). Illustrative Example: Administrative Aide	39,448	694	\$18.08
	<u>Secretaries, Except Legal, Medical, and Executive</u> Perform routine clerical and administrative functions such as drafting correspondence, scheduling appointments, organizing and maintaining paper and electronic files, or providing information to callers. Exclude legal, medical, or executive secretaries and administrative assistants (43-6011 through 43-6013). Illustrative Examples: Personal Secretary; Office Secretary; Receptionist Secretary	60,082	1,046	\$13.64

<b>Phlebotomy</b>	<u>Healthcare Support Workers, All Other</u> All healthcare support workers not listed separately. Illustrative Examples: Phlebotomist; Reducing Salon Attendant	8,464	238	\$12.98
<b>Refrig/Air Conditioning</b>	<u>Heating, Air Conditioning, and Refrigeration Mechanics and Installers</u> Install or repair heating, central air conditioning, or refrigeration systems, including oil burners, hot-air furnaces, and heating stoves. Illustrative Examples: Furnace Converter; Gas Furnace Installer; Oil Burner Repairer	8,248	158	\$21.23
<b>Robotics</b>	<u>Electro-Mechanical Technicians</u> Operate, test, and maintain unmanned, automated, servo-mechanical, or electromechanical equipment. May operate unmanned submarines, aircraft, or other equipment at worksites, such as oil rigs, deep ocean exploration, or hazardous waste removal. May assist engineers in testing and designing robotics equipment.	469	9	\$23.20
<b>Welding</b>	<u>Welders, Cutters, Solderers, and Brazers</u> Use hand-welding, flame-cutting, hand soldering, or brazing equipment to weld or join metal components or to fill holes, indentations, or seams of fabricated metal products. Illustrative Examples: Acetylene Burner; Arc Welder; Blow Torch Operator  <u>Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders</u> (Laser Cutter Machine Operator) Set up, operate, or tend welding, soldering, or brazing machines or robots that weld, braze, solder, or heat treat metal products, components, or assemblies. Include workers who operate laser cutters or laser-beam machines. Illustrative Examples: Electron Beam Welder Setter; Laser-Beam Machine Operator; Ultrasonic Welding Machine Operator	14,746	406	\$17.16
		5,630	155	\$23.27

1. The average wages and demand for the listed occupations are estimates and will vary by industry, geography, and a candidates skills and experience.
2. The occupations listed are not intended to be all inclusive but are meant to represent a sampling of the fields that the short term training programs would prepare an individual to enter. Individual employers may require, at their discretion, additional training, experience or skills as a requirement for employment.
3. Median hourly wage represents the rate of pay per hour at which half of those working in the profession made more than the amount noted and half made less in calendar year 2005. It is not the average pay per hour.

*For information on admittance or career guidance, please contact the community college's Admissions Office or Student Services Office.*