



**Planning, managing, and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance and manufacturing/process engineering.**

| PATHWAYS  | SKILLS STANDARDS   | CURRICULUM  | ASSESSMENTS   |
|---|--|---|---|
| <b>Production</b>                                   | <ul style="list-style-type: none"> <li>• Electronics:               <ul style="list-style-type: none"> <li>— Electronics Assembler</li> <li>— General Electronics Technician</li> </ul> </li> <li>• Machine Tool:               <ul style="list-style-type: none"> <li>— Drill Press Operator</li> <li>— Lathe Operator</li> <li>— CNC Machining Center Operator</li> </ul> </li> <li>• Welding:               <ul style="list-style-type: none"> <li>— Shielded Metal Arc Welder</li> <li>— Gas Metal Arc Welder</li> <li>— Flux-Cored Arc Welder</li> <li>— Gas Tungsten Arc Welder</li> <li>— Cutting Process Operator</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>• Career Clusters: Manufacturing VHS and DVD</li> <li>• Introduction to Lasers TLA</li> <li>• Drafting: Engineering Sketching TLA</li> <li>• Manufacturing TLA</li> <li>• Basic Drafting</li> <li>• Fundamentals of Welding</li> <li>• Oxyacetylene Welding and Oxyfuel Cutting</li> <li>• SMAW: Shielded Metal Arc Welding and Carbon Arc Cutting – Air</li> <li>• GMAW: Gas Metal Arc Welding and FCAW: Flux-Cored Arc Welding</li> <li>• Shielded Metal Arc Pipe Welding</li> <li>• GTAW: Gas Tungsten Arc Welding and Plasma Arc Cutting</li> <li>• Welding Interactive Tests</li> <li>• Manufacturing Career Multimedia CD-ROM</li> <li>• Manufacturing Technology - Fundamentals</li> <li>• Manufacturing Technology - CNC Machining</li> <li>• TechConnect Introduction to Modern Manufacturing</li> <li>• TechConnect Introduction to Welding</li> </ul> | <ul style="list-style-type: none"> <li>• Electronics:               <ul style="list-style-type: none"> <li>— Electronics Assembler</li> <li>— General Electronics Technician</li> </ul> </li> <li>• Machine Tool:               <ul style="list-style-type: none"> <li>— Drill Press Operator</li> <li>— Lathe Operator</li> <li>— CNC Machining Center Operator</li> </ul> </li> <li>• Drafting:               <ul style="list-style-type: none"> <li>— Drafting Technician</li> <li>— Architectural Drafter</li> <li>— Mechanical Drafter</li> </ul> </li> <li>• Welding:               <ul style="list-style-type: none"> <li>— Shielded Metal Arc Welder</li> <li>— Gas Metal Arc Welder</li> <li>— Flux-Cored Arc Welder</li> <li>— Gas Tungsten Arc Welder</li> <li>— Cutting Process Operator</li> </ul> </li> </ul> |
| <b>Manufacturing Production Process Development</b> |  | <ul style="list-style-type: none"> <li>• Career Clusters: Manufacturing VHS and DVD</li> </ul>  |   |
| <b>Maintenance, Installation, and Repair</b>        | <ul style="list-style-type: none"> <li>• Electronics:               <ul style="list-style-type: none"> <li>— Biomedical Electronics Technician</li> </ul> </li> <li>• Microcomputer Repair:               <ul style="list-style-type: none"> <li>— Microcomputer Repair Technician</li> <li>— Microcomputer Networking Technician</li> </ul> </li> <li>• Industrial Maintenance Technology:               <ul style="list-style-type: none"> <li>— Industrial Maintenance Mechanic</li> <li>— Fluid Power Mechanic</li> <li>— Electrical/Electronic Mechanic</li> <li>— Mechanical Power Transmission Mechanic</li> </ul> </li> </ul>            | <ul style="list-style-type: none"> <li>• Career Clusters: Manufacturing VHS and DVD</li> <li>• Major Appliance Repair</li> </ul>  | <ul style="list-style-type: none"> <li>• Microcomputer Repair:               <ul style="list-style-type: none"> <li>— Microcomputer Repair Technician</li> <li>— Microcomputer Networking Technician</li> </ul> </li> <li>• Industrial Maintenance Technology:               <ul style="list-style-type: none"> <li>— Industrial Maintenance Mechanic</li> <li>— Fluid Power Mechanic</li> <li>— Electrical/Electronic Mechanic</li> <li>— Mechanical Power Transmission Mechanic</li> </ul> </li> <li>• Major Appliance Installer</li> <li>• Biomedical Electronics Technician</li> </ul>  |



(Continued)

| PATHWAYS   | SKILLS STANDARDS  | CURRICULUM   | ASSESSMENTS   |
|--|---|--|---|
| <b>Maintenance, Installation, and Repair</b> (continued) | <ul style="list-style-type: none"> <li>• Major Appliance:             <ul style="list-style-type: none"> <li>— Installer</li> <li>— Refrigeration Technician</li> <li>— Laundry &amp; Kitchen Technician</li> <li>— Service Technician</li> </ul> </li> </ul> |  |   |
| <b>Quality Assurance</b>                                 | <ul style="list-style-type: none"> <li>• Lab Technician</li> </ul>  | <ul style="list-style-type: none"> <li>• Career Clusters: Manufacturing VHS and DVD</li> </ul>   | <ul style="list-style-type: none"> <li>• Lab Technician</li> </ul>  |
| <b>Logistics and Inventory Control</b>                   | <ul style="list-style-type: none"> <li>• Heavy Equipment Maintenance</li> <li>• Heavy Equipment Operator</li> </ul>   | <ul style="list-style-type: none"> <li>• Career Clusters: Manufacturing VHS and DVD</li> <li>• Heavy Equipment Operator Core</li> <li>• Heavy Equipment Operator: General Equipment &amp; DVD</li> <li>• Heavy Equipment Mechanic</li> </ul>   | <ul style="list-style-type: none"> <li>• Heavy Equipment Operator</li> <li>• Heavy Equipment Maintenance</li> </ul> |
| <b>Health, Safety, and Environmental Assurance</b>       |   | <ul style="list-style-type: none"> <li>• Career Clusters: Manufacturing VHS and DVD</li> <li>• Safety Design Briefs TLA</li> <li>• Safety on the job</li> <li>• Safety Training CD-ROMS</li> <li>• Workplace Safety and Health Advisor</li> <li>• Weather and Meteorology TLA</li> </ul> |   |

\* ODCTE provides/will provide state certification testing.