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| **Institution:** | Texas State Technical College | **Award Title:** | Precision Machining Technology |
| **Program:** | Precision Machining Technology Associate of Applied Science Degree | **Award CIP Code:** | 48.0504.00 |

| **Duties to WECM Courses Matrix** | | | | | | | | | | | | | |
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| **Machinist Level I Skill Standards**  **Duty #/Title** | **WECM Course Rubric, Number and Title** | | | | | | | | | | | | |
| INMT 1319  Manufacturing  Processes | MCHN 1320  Precision Tools and Measurement | DFTG 1325  Blueprint Reading | MCHN 1301  Beginning Machine Shop | MCHN 1438  Basic Machine Shop | MCHN 1326  Intro to Computer-  Aided Manufacturing  (CAM) | MCHN 1454  Intermediate Machining II | ENTC 2310  Machine Design | MCHN 2444  Fundamentials of CNC | MCHN 2335  Advanced CNC Machining | MCHN 2471  Specialized Equipment and Processes | MCHN2341  Advanced Machining I | MCHN 2338 Advanced Computer-Aided Design |
| 1.1 Job Process Planning: |  |  | X | X | X |  | X | X | X |  |  | X | x |
| 2.1 Manual Operations: Benchwork |  |  |  | X | X |  | X | X | X | X | X | X |  |
| 2.2 Manual Operations: Layout |  |  |  | X | X |  | X | X | X | X | X | X |  |
| 2.3 Turning operations: Between centers turning |  |  |  | X | X |  | X | X |  |  |  |  |  |
| 2.4 Turning Operations: Chucking | X |  |  | X | X |  | X | X |  |  |  | X |  |
| 2.5 Milling: Square up block |  |  |  | X |  |  | X | X |  | X | x | X |  |
| 2.6 Vertical Milling |  |  |  | X |  |  | X | X |  |  |  | X |  |
| 2.7a Surface Grinding, Grinding Wheel Safety |  |  |  |  |  |  |  | X |  | X | X |  |  |
| 2.7b Surface Grinding, Horizontal Spindle, Reciprocating Table |  |  |  |  |  |  |  | X |  | X | X |  |  |
| 2.8 Drill Press | X |  |  | X | X |  | X | X |  |  |  |  |  |
| 2.9 CNC Programming |  |  |  |  |  | X |  | X | X | X | X | X |  |
| 3.1 Part Inspection | X | X |  | X | X | X | X | X |  | X | X | X | x |
| 3.2 Process Control | X | X |  | X | X | X | X | X | X | X | x | X | x |
| 4.1 Process Adjustment, Single part production | X |  |  | X | X |  | X | X | X | X | X | X | x |
| 4.2 Participation in process Improvement | X |  |  | X | X | X | X | X | X | X | X | X | x |
| 5.1 Genral Housekeeping amd Maintenance | X | X | X | X | X | X | X | X | X | X | X | X |  |
| 5.2 Preventative Maintenance, Machine Tools |  |  |  | X | X |  | X | X |  | X |  |  |  |
| 5.3 Tooling Maintenance | X | X |  | X | X |  | X | X |  | X | x | X |  |
| 6.1 Machine Operations and Material Handling | X |  |  | X | X |  | X | X | X | X | X | X |  |
| 6.2 Hazardous Materials Handling and Disposal |  |  |  | X | X |  | X | X | X | X |  |  |  |
| 7.1 Career Planning |  | X | X | x |  |  |  |  | X |  | X |  |  |
| 7.2 Job Applications and Interviewing |  |  |  | x |  |  |  |  |  |  |  |  |  |
| 7.3 Teamwork and Interpersonal Realtions | X | X | X | X | X | X | X |  | X | X | X | X | x |
| 7.4 Organizational Structures and Work Relations | X |  |  | X | X |  | X |  | X | X |  |  |  |
| 7.5 Employment Relations |  |  |  | x |  |  |  |  | X | X |  |  |  |