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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 1320Precision Tools and Measurement | DFTG 1325Blueprint Reading | MCHN 1301Beginning Machine Shop | MCHN 1438Basic Machine Shop | MCHN 1326Intro to Computer-Aided Manufacturing(CAM) | MCHN 1454Intermediate Machining II | ENTC 2310Machine Design | MCHN 2444Fundamentials of CNC | MCHN 2335 Advanced CNC Machining | MCHN 2471Specialized Equipment and Processes |  MCHN2341Advanced 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 |   |   |   |