## Content Domains

Precision Machining 48.0500.30


The technical standards for the Precision Machining Program are clustered in 4 domains. The greatest percentage of instructional time will be spent on domains 1,2 and 3 with less time on domain 4 . Students who complete the program should demonstrate a thorough knowledge in each of these domains.


## Content Domains. Standards and Instruction

Precision Machining
48.0500.30

Domain
Related Standards

| Domain 1 <br> Manual <br> Operations | STANDARD 6.0 PERFORM BASIC DRILL PRESS OPERATIONS <br> STANDARD 7.0 PERFORM BASIC TURNING OPERATIONS <br> STANDARD 8.0 PERFORM BASIC MILLING OPERATIONS <br> STANDARD 9.0 EXPLAIN BASIC PRECISION GRINDING OPERATIONS | $35-45 \%$ |
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| Domain 2 <br> Measurement, <br> Materials, Safety, <br> and Layout | STANDARD 2.0 APPLY INDUSTRY SAFETY STANDARDS FOR PRECISION MACHINING <br> STANDARD 3.0 IMPLEMENT PRECISION AND SEMI-PRECISION MEASUREMENT <br> STANDARD 4.0 DISTINGUISH AMONG TYPES OF MATERIALS AND ROUTINE MAINTENANCE <br> REQUIREMENTS <br> STANDARD 5.0 DESIGN A JOB PROCESS PLAN INCLUDING BENCHWORK AND LAYOUT | $30-40 \%$ |
| Domain 3 <br> CNC Operations | STANDARD 10.0 DESCRIBE BASIC OPERATIONS OF A CNC MACHINE <br> STANDARD 11.0 PERFORM BASIC CNC TURNING OPERATIONS <br> STANDARD 12.0 PERFORM BASIC CNC MILLING OPERATIONS <br> STANDARD 13.0 ASSESS ADVANTAGES OF USING COMPUTER AIDED-DESIGN (CAD) AND <br> COMPUTER-AIDED MANUFACTURING (CAM) SOFTWARE | $30-40 \%$ |
| Domain 4 <br> History | STANDARD 1.0 ANALYZE THE EVOLUTION OF PRECISION MACHINING |  |

