Kentucky CTE

# Advanced Manufacturing: Computerized Manufacturing and Machining: Blueprint Reading for Machinists 470921 (2026–2027)


Practice and perform safe shop procedures at all times. 1

1 Practice and perform safe shop procedures at all times. 1

Apply the technical math required for employment opportunities in machining. 2

2 Apply the technical math required for employment opportunities in machining. 2

Perform all duties with emphasis on integrity, responsibility, quality, discipline and teamwork. 3

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Demonstrate competency in mathematical fraction and decimal problems. 4

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Identify the alphabet of lines. 5

5 Identify the alphabet of lines. 5

Identify multiple views. 6

6 Identify multiple views. 6

Ar Skip to main content rrange multiple views. 7

views. 7

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| Arrange two-view drawings. 8 | 8 Arrange two-view drawings. 8 |
| Identify one-view drawings. 9 | 9 Identify one-view drawings. 9 |
| Arrange and identify auxiliary views. 10 | 10 Arrange and identify auxiliary views. 10 |
| Demonstrate the use of size and location dimensions. 11 | 11 Demonstrate the use of size and location dimensions. 11 |
| Demonstrate proper dimensions of cylinders and arcs. 12 | 12 Demonstrate proper dimensions of cylinders and arcs. 12 |
| Size dimensions of holes and angles. 13 | 13 Size dimensions of holes and angles. 13 |
| Locate dimensions for centering of holes, points, and centers. 14 | 14 Locate dimensions for centering of holes, points, and centers. 14 |
| Interpret the base line dimensions on drawings. 15 | 15 Interpret the base line dimensions on drawings. 15 |
| Calculate tolerances. 16 | 16 Calculate tolerances. 16 |
| Identify labeling of various screw threads. 17 | 17 Identify labeling of various screw threads. 17 |
| Calculate tapers and machined surfaces. 18 | 18 Calculate tapers and machined surfaces. 18 |
| Dimension parts using shop notes. 19 | 19 Dimension parts using shop notes. 19 |
| Identify half, full, and removed sections. | 20 Identify half, full, and removed sections. 20 |

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| Set tolerances using geometric dimensioning techniques. 22 | 22 Set tolerances using geometric dimensioning techniques. 22 |
| Sketch parts with irregular shapes. 23 | 23 Sketch parts with irregular shapes. 23 |
| Sketch oblique views of various parts. 24 | 24 Sketch oblique views of various parts. 24 |
| Sketch and dimension shop drawings. 25 | 25 Sketch and dimension shop drawings. 25 |
| Demonstrate visualizing techniques of multiple views. 26 | 26 Demonstrate visualizing techniques of multiple views. 26 |
| Identify line types used in combinations. 27 | 27 Identify line types used in combinations. 27 |
| Identify standards listings on working drawings. 28 | 28 Identify standards listings on working drawings. 28 |
| List procedural machining and construction requirements from notations on working drawings. 29 | 29 List procedural machining and construction requirements from notations on working drawings. 29 |
| List proper procedures for the construction of various machining processes. 30 | 30 List proper procedures for the construction of various machining processes. 30 |
| Determine proper thread series and types for duty-specific assembly. 31 | 31 Determine proper thread series and types for duty-specific assembly. 31 |
| Sp<br>us | Skip to main content<br>Specify duty-specific uses of contour notes. 32 |

notes. 32

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| Determine overall measurements of contoured parts. 33 | 33 Determine overall measurements of contoured parts. 33 |
| Explain various terms involved in multiple sections. 34 | 34 Explain various terms involved in multiple sections. 34 |
| Identify usages for chamfers and interpret sizes. 35 | 35 Identify usages for chamfers and interpret sizes. 35 |
| Define various chamfer terms. 36 | 36 Define various chamfer terms. 36 |
| Determine the sizing procedures of necks and grooves. 37 | 37 Determine the sizing procedures of necks and grooves. 37 |
| Identify various keyway and key seat standards. 38 | 38 Identify various keyway and key seat standards. 38 |
| Identify the usage of geometric symbols. 39 | 39 Identify the usage of geometric symbols. 39 |
| Define terms relating to geometric tolerance. 40 | 40 Define terms relating to geometric tolerance. 40 |
| Set standards and tolerances using geometric dimensioning. 41 | 41 Set standards and tolerances using geometric dimensioning. 41 |
| Set axis coordinates on numerical control prints. 42 | 42 Set axis coordinates on numerical control prints. 42 |
| Determine axis coordinates on ordinate and tabular prints. 43 | 43 Determine axis coordinates on ordinate and tabular prints. 43 |
| Ide Skip to main content forging terms. 44 | Identify casting and forging terms. 44 |

**Calculate bend setbacks in sheet metals and plate steels.** 45

**45** **Calculate bend setbacks in sheet metals and plate steels.** 45

**Identify parts and materials from various reference books and manuals.** 46

**46** **Identify parts and materials from various reference books and manuals.** 46