Kentucky CTE

Advanced Manufacturing: Computer-Aided Design: Advanced Dimensioning and Measurement 470924 (2026–2027)

Define terms and principles used in advanced dimensioning. 1	1 Define terms and principles used in advanced dimensioning. 1
Apply drawing practices and tolerance dimensioning on mating parts. 2	2 Apply drawing practices and tolerance dimensioning on mating parts. 2
Explain and work with ANSI (American National Standards Institute) standards. 3	3 Explain and work with ANSI (American National Standards Institute) standards. 3
Demonstrate surface texture symbols and surface finish. 4	4 Demonstrate surface texture symbols and surface finish. 4
Compare conventional tolerancing with Geometric Dimensioning and Tolerancing. 5	5 Compare conventional tolerancing with Geometric Dimensioning and Tolerancing. 5
Establish a basic understanding of Ge Di To	6 Establish a basic understanding of Geometric Dimensioning and Tolerancing. 6

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Analyze specific graphic designs and determine the proper location for dimensions. 7	**7 Analyze specific graphic designs and determine the proper location for dimensions.** 7
Define terms and principles relating to Dimensional Metrology. 8	**8 Define terms and principles relating to Dimensional Metrology.** 8
Demonstrate a working knowledge of basic handheld measuring instruments. 9	**9 Demonstrate a working knowledge of basic handheld measuring instruments.** 9
Measure with basic handheld measuring instruments. 10	**10 Measure with basic handheld measuring instruments.** 10
Explain the relationship of precision measurement to manufacturing and design. 11	**11 Explain the relationship of precision measurement to manufacturing and design.** 11
Demonstrate a working understanding of one-tenth of an inch and one-thousandth of an inch. 12	**12 Demonstrate a working understanding of one-tenth of an inch and one-thousandth of an inch.** 12