Kentucky CTE

Engineering Technology: Mechanical Engineering

Apply the design process involving MEE1	a problem identification, conceptualization, and research MEE1A
	b refinement of preliminary ideas, design analysis, development and implementation MEE1B
	c detailed documentation of final design, optimization and final presentation MEE1C
Demonstrate an understanding of manufacturing, its history, models, and procedures. MEE2	2 Demonstrate an understanding of manufacturing, its history, models, and procedures. MEE2
Demonstrate an understanding of MEE3	a control systems MEE3A
	b methods to describe or document their processes MEE3B
Demonstrate an understanding of the cost of manufacturing. MEE4	4 Demonstrate an understanding of the cost of manufacturing. MEE4
Demonstrate proficiency in designing products for manufacturability. MEE5	5 Demonstrate proficiency in designing products for manufacturability. MEE5
Demonstrate an understanding of manufacturing processes. MEE6	6 Demonstrate an understanding of manufacturing processes. MEE6
Demonstrate an understanding of computer numeric control (CNC) as it relates to product	7 Demonstrate an understanding of computer numeric control (CNC) as it relates to product design and development. MEE7

design and development. MEE7	
Demonstrate an understanding of automation and robotics relative to the manufacturing process. MEE8	**8** Demonstrate an understanding of automation and robotics relative to the manufacturing process. MEE8
Demonstrate an understanding of the elements of power and the associated mathematics. MEE9	**9** Demonstrate an understanding of the elements of power and the associated mathematics. MEE9
Build, program, and configure a robot to perform predefined tasks. MEE10	**10** Build, program, and configure a robot to perform predefined tasks. MEE10
Demonstrate an understanding of the elements of Computer Integrated Manufacturing (CIM). MEE11	**11** Demonstrate an understanding of the elements of Computer Integrated Manufacturing (CIM). MEE11
Demonstrate proficiency in designing an efficient flexible manufacturing system (FMS) that contains Computer Integrated Manufacturing (CIM) elements. MEE12	**12** Demonstrate proficiency in designing an efficient flexible manufacturing system (FMS) that contains Computer Integrated Manufacturing (CIM) elements. MEE12