

Unit/Standard Number	<u>High School Graduation Years 2019, 2020 and 2021</u>		Proficiency Level Achieved: (X) Indicates Competency Achieved to Industry Proficiency Level
	Drafting and Design Technology/Technician, General CIP 15.1301 Task Grid		
	Secondary Competency Task List		
100	ORIENTATION		
101	Demonstrate safety in the drafting room.		
102	Demonstrate professionalism.		
200	INTRODUCTION TO DRAFTING AND DESIGN		
201	Identify basic board drafting tools and equipment, which are used to produce drawings.		
202	RESERVED		
203	Demonstrate the knowledge of the basic uses of scales.		
204	Demonstrate skill in using Imperial and Metric System of measurement.		
205	Identify components of a drawing.		
206	Identify and select a letter style appropriate for technical drawings.		
300	GEOMETRIC CONSTRUCTION		
301	Draw to scale.		
302	Draw geometric figures using basic drafting principles		
303	Create drawings using geometric construction principles.		
400	RESERVED		
401	RESERVED		
402	RESERVED		
403	RESERVED		
500	FREEHAND DRAWING AND SKETCHING		
501	Identify and sketch the alphabet of lines.		
502	Sketch orthographic views.		
503	Sketch an isometric drawing.		
504	Develop a perspective drawing using freehand methods.		
505	RESERVED		
506	RESERVED		
507	Express an idea using the sketching process.		
508	Create letters and numbers in single stroke capital letters (Gothic) on a technical sketch.		

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600	INTRODUCTION TO ENGINEERING MATH		
601	Use basic math operations to demonstrate scaling techniques.		
602	Use basic applied mathematics to solve engineering problems.		
603	Construct lines using relative, absolute and polar coordinate systems.		
604	Establish the relationship among points, lines, and planes in 3-D space.		
605	Solve descriptive geometry problems.		
700	INTRODUCTION TO MECHANICAL DRAWING AND DESIGN		
701	Identify and draw necessary orthographic views.		
702	Explain the relationship of orthographic projection to multiview drawing.		
703	Identify 1st angle and 3rd angle projection.		
704	Identify and draw auxiliary views.		
705	Identify and draw section views.		
706	Identify and draw threads and fasteners.		
707	Create working drawings (assembly, detail drawings, BOM)		
708	Create a title block on a mechanical drawing.		
800	DIMENSIONING		
801	Apply measurements, notes, and symbols to a technical drawing.		
802	Apply ASME Standards for Dimensions, tolerances, and notes.		
803	Apply ISO Standards for Dimensions and notes.		
804	Specify dimensions and tolerances using symbols and notes.		
805	Reverse engineer a drawing from an existing part.		
900	INTRODUCTION TO ARCHITECTURE		
901	RESERVED		
902	Construct a floor plan.		
903	Construct an elevation.		
904	Construct a typical wall section.		
905	Draw a pictorial view.		
906	RESERVED		
1000	INTRODUCTION TO CIVIL DRAFTING		
1001	Construct a site plan.		

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1002	RESERVED		
1003	RESERVED		
1004	Read and interpret a deed.		
1005	Identify survey and/or GPS equipment.		
1100	INTRODUCTION TO ELECTRICAL AND ELECTRONIC DRAFTING		
1101	Identify and describe various symbols.		
1102	Create a schematic wiring diagram.		
1200	COMPUTER ASSISTED DRAFTING (CAD)		
1201	Utilize input and output devices such as printers, plotters, etc.		
1202	Use drawing aids and controls.		
1203	Use drawing and editing tools.		
1204	Use viewing tools.		
1205	Utilize a commercially built drafting library.		
1206	Produce a custom built drafting library.		
1207	Make a revision to an existing drawing.		
1208	Configure and use dimensions and tolerances.		
1209	Create 3-dimensional models.		
1210	RESERVED		
1211	Create parametric solid models.		
1212	Render a drawing.		
1213	Import, export and link drawings.		
1214	Manage and store files.		
1215	Use rapid prototyping.		
1216	Draw, modify and apply text justifications on a CAD system.		