



Competency Task List – Secondary Component
Drafting and Design Technology/Technician, General CIP 15.1301
High School Graduation Years 2025, 2026, 2027

100 Orientation

Item	Task	(X) Indicates Proficiency ¹	Secondary Course Crosswalk
101	Follow safety measures in the drafting room.		
102	Display professional demeanor and behavior.		

200 Introduction to Drafting and Design

Item	Task	(X) Indicates Proficiency ¹	Secondary Course Crosswalk
201	Identify basic board drafting tools and equipment which are used to produce drawings.		
	RESERVED (202)		
203	Use various types of scales (architectural, engineer, and metric).		
204	Create single view drawings using the imperial and metric systems of measurement.		
205	Identify components of a drawing.		
	RESERVED (206)		

300 Geometric Construction

Item	Task	(X) Indicates Proficiency ¹	Secondary Course Crosswalk
301	Draw to scale.		
302	Draw geometric figures.		
303	Create drawings using geometric construction principles.		

400 Reserved

500 Freehand Drawing and Sketching

Item	Task	(X) Indicates Proficiency ¹	Secondary Course Crosswalk
501	Sketch the alphabet of lines.		
502	Sketch multiview drawings using orthographic principles.		
503	Sketch isometric drawings.		
504	Develop a perspective drawing using freehand methods.		
	RESERVED (505-506)		
507	Communicate ideas using the sketching process.		
508	Create letters and numbers in single stroke capital letters (Gothic) on a technical sketch.		

600 Introduction to Engineering Math

Item	Task	(X) Indicates Proficiency ¹	Secondary Course Crosswalk
601	Determine the scale of various drawings.		
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 a 3-D space.		
605	Solve descriptive geometry problems.		

700 Introduction to Mechanical Drawing and Design

Item	Task	(X) Indicates Proficiency ¹	Secondary Course Crosswalk
701	Draw necessary orthographic views.		
702	Explain the relationship of orthographic projection in a multi-view drawing.		
703	Identify 1st angle and 3rd angle projection.		
704	Draw auxiliary views.		
705	Draw various types of section views.		
706	Draw various types of threads and fasteners.		
707	Create working drawings (assembly, detail drawings, BOM)		
708	Create a title block on a mechanical drawing.		
709	Draw basic welding symbols.		
710	Reverse engineer a drawing from an existing part.		

800 Dimensioning

Item	Task	(X) Indicates Proficiency ¹	Secondary Course Crosswalk
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.		
	RESERVED (804-805)		

900 Introduction to Architecture

Item	Task	(X) Indicates Proficiency ¹	Secondary Course Crosswalk
	RESERVED (901)		
902	Construct various plan views.		
903	Construct interior and exterior elevations.		
904	Construct a typical building and wall sections.		
905	Draw a pictorial view.		
	RESERVED (906-907)		
908	Apply current ADA guidelines to set of architectural plans.		

1000 Introduction to Civil Drafting

Item	Task	(X) Indicates Proficiency ¹	Secondary Course Crosswalk
1001	Construct a site plan.		
	RESERVED (1002-1004)		
1005	Identify survey and/or GPS equipment.		
1006	Identify the elements used to create a Civil design plan.		
1007	Read and interpret a deed.		

1100 Introduction to Electronic Drafting

Item	Task	(X) Indicates Proficiency ¹	Secondary Course Crosswalk
1101	Identify and describe various symbols.		
	RESERVED (1102)		

1200 Computer Assisted Drafting (CAD)

Item	Task	(X) Indicates Proficiency ¹	Secondary Course Crosswalk
1201	Utilize input and output devices.		
1202	Use drawing aids and controls.		
1203	Use drawing and editing tools.		
1204	Use viewing tools.		
1205	Utilize a commercially built drafting libraries.		
1206	Produce a custom-built drafting library.		
1207	Make revisions to existing drawings.		
1208	Configure and use dimensions and tolerances.		
1209	Create 3-dimensional models.		
	RESERVED (1210)		
1211	Create parametric solid models.		
1212	Create rendered drawings.		
1213	Import, export, and link drawings.		
1214	Manage and store files.		
1215	Use rapid prototyping methods.		
1216	Create, modify, and apply text justifications on a CAD system.		

¹ Student Demonstrated Entry-Level Industry Proficiency as Indicated by (X)

Secondary CTE Instructor Signature _____ Date _____

Student Signature _____ Date _____