

INDUSTRIAL DRAFTING – LEVEL II CERTIFICATE

PROGRAM CODE: 2C10623A

The **Industrial Drafting - Level II Certificate** is designed for students who have completed Level I and wish to learn advanced technical drafting skills required in the industry. Drafters use software to convert the designs of engineers and others into technical drawings. Drafters proficient in technical drawings and CAD are likely to have better job opportunities. This certificate requires completion of the Industrial Drafting-Level I Certificate plus additional advanced courses for Level II, for a total of 41 units. At least one half of the units toward the certificate must be completed at Fullerton College. A minimum grade of C is required in each course taken.

Code	Title	Units
Required Courses from Level I (20 units):		
DRAF 101 F	Blueprint Reading for Manufacturing (formerly DRAF 070 F)	2
DRAF 140 F	AutoCAD for Industry	3
DRAF 171 F	Fundamentals of Drafting	2
DRAF 173 F	Geometric Dimensioning and Tolerancing	2
MACH 116 F	Machine Tools	2
MACH 150 F	CNC Programming Using Mastercam (formerly MACH 050 F)	3
or MACH 154 F	CNC Programming Using Surfcam (formerly MACH 060 F)	
WELD 100 F	Introduction to Welding (formerly WELD 121AF)	3
ARCH 124 F	Architectural CAD I	3
Required Courses for Level II (21 units):		
DRAF 141 F	Advanced CAD for Industry	3
DRAF 944 F	Solidworks	3
DRAF 945 F	Advanced Solidworks	3
TECH 081 F	Technical Mathematics I	3
MACH 152 F	Advanced CNC Programming Using Mastercam (formerly MACH 052 F)	3
or MACH 156 F	Advanced CNC Programming Using Surfcam (formerly MACH 062 F)	
TECH 108 F	Manufacturing Processes	3
METL 192 F	Fundamentals of Metallurgy	3
Total Units		41

Outcome 1: Construct advanced 3D prototype models utilizing CAD and CAM software using modern prototyping methods and technologies in conjunction with ASME standards.

Outcome 2: Demonstrate the ability to utilize CAD and CAM software to create advanced 3D models of various manufactured products and their components to create and interpret engineering drawings implementing ASME standards.