

# MACHINE TECHNOLOGY LEVEL II CERTIFICATE

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**PROGRAM CODE:** 2C10624

The **Machine Technology Level II Certificate** is designed for students wishing to pursue a career in more advanced machining or manufacturing areas. This type of certificate program typically leads to entry or intermediate level careers as a machinist, toolmaker, CNC operator, CNC programmer, manufacturing engineer, process engineer, field service technician as well as a number of other manufacturing/service positions. This certificate requires a total of 32-37 units. At least one half of the units toward the certificate must be completed at Fullerton College. A grade of C or better is required in each course taken.

Code	Title	Units
<b>Required Courses (22-25 units):</b>		
DRAF 101 F	Blueprint Reading for Manufacturing (formerly DRAF 070 F)	2
DRAF 173 F	Geometric Dimensioning and Tolerancing	2
MACH 110 F	CNC Machine Set-Up and Operation (formerly MACH 086 F)	3
MACH 101 F	Introduction to Machine Tools (formerly MACH 091 F)	2-5
or MACH 116 F	Machine Tools	
MACH 102 F	Intermediate Machine Tools (formerly MACH 092 F)	5
MACH 103 F	Advanced Machine Tools (formerly MACH 093 F)	5
TECH 081 F	Technical Mathematics I	3
<b>Restricted Electives (10-12 units):</b>		<b>10-12</b>
DRAF 171 F	Fundamentals of Drafting	2
METL 192 F	Fundamentals of Metallurgy	3
MACH 116 F	Machine Tools	2
MACH 120 F	Advanced CNC Machining (formerly MACH 088 F)	3
TECH 108 F	Manufacturing Processes	3
TECH 127 F	Industrial Safety	2
WELD 100 F	Introduction to Welding (formerly WELD 121AF)	3
<b>Total Units</b>		<b>32-37</b>

**Outcome 1:** Demonstrate the ability to evaluate machined parts per drawing specifications by selecting and utilizing the appropriate measuring tools.

**Outcome 2:** Determine operational sequences, select appropriate machine tools, work-holding devices and cutting tools to machine piece parts to drawings specifications which include various material removal processes.

**Outcome 3:** Demonstrate basic proficiency to set-up/operate machinery such as engine lathes, milling machines, surface grinders and basic CNC equipment to produce machined parts that fit together in assemblies per drawing specifications.