

METROLOGY CERTIFICATE

Division: Technology and Engineering

PROGRAM CODE: 2C37762

The **Metrology Certificate** covers various aspects of the manufacturing processes which has an emphasis on dimensional metrology, inspection reporting, mechanical part geometry and computer-assisted inspection. The goal of the Metrology Certificate Program is to prepare students for entry to intermediate level employment in the inspection, Quality Assurance and/or manufacturing field. Students entering this field typically find work in the manufacturing industry or with governmental agencies. The Metrology Certificate is also designed to enhance the skills of individuals already in the inspection, Quality Assurance and/or the manufacturing field that have a desire to learn more about measurement tools in the manufacturing trade. The Metrology Certificate Program requires the completion of 29 units with a grade of C or better in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College.

Code	Title	Units
Required Courses (29 units):		
MACH 180 F	Introduction to Metrology	3
MACH 182 F	Introduction to CMM Inspection and Romer Arms	3
MACH 184 F	Advanced CMM and Romer Arm Inspection	3
MACH 185 F	CMM and Romer Arm Applications	2
METL 192 F	Fundamentals of Metallurgy	3
DRAF 101 F	Blueprint Reading for Manufacturing (formerly DRAF 070 F)	2
DRAF 173 F	Geometric Dimensioning and Tolerancing	2
DRAF 944 F	Solidworks	3
TECH 081 F	Technical Mathematics I	3
TECH 108 F	Manufacturing Processes	3
MACH 116 F	Machine Tools	2
Total Units		29

Outcome 1: Demonstrate the ability to employ basic and automated measurement tools to perform basic inspections on piece parts per drawing specifications.

Outcome 2: Demonstrate the ability to perform simple calculations for unit conversions and to obtain final values from drawings for inspection reports.

Outcome 3: Demonstrate proficiency in completing a simple Inspection Report for piece parts utilizing basic measurement tools and drawings.

Outcome 4: Demonstrate an understanding of the ANSI Y 14.5 standard by inspecting and evaluating piece part conformance to the ANSI features in the drawing specifications.

https://www.curricunet.com/fullerton/reports/program_report.cfm?programs_id=790