

# MACHINE TECHNOLOGY: ENTRY LEVEL MACHINIST - CERTIFICATE OF ACHIEVEMENT LEVEL 2

San José City College offers an Associate in Science (AS) in CNC Machining and three certificates: CNC Machine Operator, Entry Level Machinist, and CNC, CAD/CAM Machinist. Successful completion of program prepares the graduate for entry into the machinist trade and positions in industry requiring technical skill and understanding of precision metalworking. Most courses applying to degree or certificate have basic language/math requirements and/or course prerequisites.

A grade of "C" or better is required in all major, certificate and major elective courses.

## CAREER OPTIONS:

- Mechanic Shop Deburr/Detail Person
- Manual Machinist
- CNC Operator
- CNC Programmer
- CNC Setup Operator/Programmer
- Tool and Die Inspector
- QA/QC Inspector
- Expeditor

Upon successful completion of this program, students will be able to:

- Demonstrate the proper use of machine tools, methods, recognition of different type of materials; and follow safety practices and procedures used in the industry.
- Demonstrate understanding of machine technology vocabulary, and be able to apply concepts in a practical manner. Students will solve problems related to set up applications.
- Read and interpret blueprints, sketches, ANSI specifications, shop drawings, and communicate with various groups the practical application of such interpretations.
- Apply and use new technologies that emerge in this changing field.

## Certificate Requirements

Course	Title	Credits
MACH 100	Shop Math and Drawings	4
MACH 101	Introduction to Machine Technology	3
MACH 151A	Advanced Lathe Practices	4
MACH 151B	Advanced Milling Machine Practices <sup>1</sup>	4
Approved Major Electives (see list below)		3
<b>Total Units</b>		<b>18</b>

<sup>1</sup> MACH 151B must be taken at San José City College.

## Approved Program Electives

Complete a minimum of 1 unit from the following approved major electives to reach 33 total units for certificate:

Course	Title	Credits
CIS 041	Introduction to Computer Information Systems	3
MACH 098	Directed Study in Machine Technology	.5-9
MACH 109	Introduction to Coordinate Measurement Machine	3
MACH 138	Work Experience	1-8
MACH 154	Introductory CAD/CAM Operations for Machinists and Operators	2
MACH 158	Advanced CAD/CAM Operations for Machinists and Operators	2
MACH 159	Introduction to CNC Programming Macros	2
MACH 160	Introduction to CNC Laser Applications	5
MACH 165	Mill Setups I	1.5
<b>Total Units</b>		<b>33</b>