

## MACHINE TECHNOLOGY

### Machine Technology Associate of Science Degree

To graduate with a specialization in one of the Machine Technology majors, students must complete all the requirements for the appropriate certificate with a grade of C or better plus the general breadth requirements for the Associate Degree (minimum total = 60 units).

### Machine Technology Certificates

Students working for certificates must have a basic knowledge of arithmetic, reading, and writing in order to learn and work in the occupations they select.

There are four Machine Technology Certificates: (1) Computer Numerical Control: CAD/CAM, (2) Machine Technology, (3) Machinist Standard, and (4) Tool and Die. Each of these certificates requires the core courses plus specialized courses.

<b>REQUIRED CORE COURSES:</b>	<b>UNITS</b>
MACH 120A    Machine Shop Theory	2
MACH 021A    Machine Shop I	4
MACH 022A    Machine Shop II	4
MACH 023A    Machine Shop III	4
MACH 024A    Machine Shop IV	4
MACH 090A    Engineering Blueprint Reading, Geometric Dimensioning and Tolerancing	3
TECALC 137    Technical Calculations	4
<b>TOTAL UNITS for the Core Requirements</b>	<b>25</b>

#### **1.        Computer Numerical Control: CAD/CAM**

<b>REQUIRED COURSES:</b>	<b>UNITS</b>
<b><u>Machine Technology Core Requirements</u></b>	<b><u>25</u></b>
MACH 070A    Computer Numerical Control Machining I	3
MACH 071A    Computer Numerical Control Machining II	3
MACH 072A    Computer Aided Design/Computer Aided Manufacturing I	3
MACH 073A    Computer Aided Design/Computer Aided Manufacturing II	3
MACH 074A    Set-up and Operation of Various Machine Controls	3
MACH 129A    Manufacturing Processes	3
<b><u>Total Units for the Computer Numerical Control: CAD/CAM specialized courses</u></b>	<b><u>18</u></b>

**TOTAL UNITS required for the Computer Numerical Control: CAD/CAM Certificate    43**

#### **2.        Machine Technology**

<b>REQUIRED COURSES:</b>	<b>UNITS</b>
<b><u>Machine Technology Core Requirements</u></b>	<b><u>25</u></b>
<b>TOTAL UNITS required for the Machine Technology Certificate</b>	<b>25</b>

### 3. Machinist Standard

REQUIRED COURSES:	UNITS
<b><u>Machine Technology Core Requirements</u></b>	<b>25</b>
MACH 070A Computer Numerical Control Machining I	3
MACH 129A Manufacturing Processes	3
<b><u>Total Units for the Machinist Standard specialized courses</u></b>	<b>6</b>
<b>TOTAL UNITS required for the Machinist Standard Certificate</b>	<b>31</b>

### 4. Tool and Die

REQUIRED COURSES:	UNITS
<b><u>Machine Technology Core Requirements</u></b>	<b>25</b>
MACH 060A Tool and Die	4
MACH 061A Jig and Fixture Making	4
MACH 062x3 Introduction to Mold Making	3
MACH 129A Manufacturing Processes	3
<b><u>Total Units for the Tool and Die specialized courses</u></b>	<b>14</b>
<b>TOTAL UNITS required for the Tool and Die Certificate</b>	<b>39</b>