

Advanced Manufacturing Technology: Basic Manual Machine Tool Technology Certificate	Industrial & Trade Technology	Total Units: 12
<p>Term Effective: Fall 2022 2023</p> <p>Description:</p> <p>The Advanced Manufacturing Technology: Basic Manual Machine Skills Certificate offers both theoretical and hands-on training related to manual lathes, vertical mills, drill presses, sawing machines and hand tools. A student enrolling in the program should have the desire and ability to work with their hands, possess a high degree of mechanical aptitude and enjoy working in a shop environment.</p> <p>Individuals who complete the Advanced Manufacturing Technology: Basic Manual Machine Skills Certificate program are prepared for employment as machine operators in manual machine shops and automotive machine shops.</p> <p>This certificate is part of a career ladder. Since technological advances and continued expansion of the machine tool industry have increased the demand for well trained, entry-level technicians locally, state-wide, and nationally. Students may choose to complete additional certificates, such as individuals with certificate level knowledge of Computer Numerical Control (CNC) machines and Computer-aided Manufacturing (CAM) are especially in demand. For students interested in an Associate Degree, an Advanced Manufacturing Technology major is available.</p> <p>Program Student Learning Outcomes:</p> <p>Upon successful completion of this program, the student will be able to:</p> <ol style="list-style-type: none"> 1. Machine a threaded pin to industry specifications. 2. When given specific tolerances, be able to determine high and low limits for a manufactured part. 3. Mill a plate on a milling machine from a blueprint. Describe applications of design, manufacturing, and fabrication applicable to non-ferrous metals <p>Program Requirements:</p> <p>The requirements for the Advanced Manufacturing Technology: Basic Manual Machine Tool Technology Certificate program are:</p> <ul style="list-style-type: none"> • Complete 12 units from <ul style="list-style-type: none"> ○ Basic Manual Machine Requirements 		

Basic Manual Machine Requirements - complete 12.00 units

MACH 51.1A	Beginning Machine Tool Technology	3.00
MACH 51.1B	Advanced Machine Tool Technology	3.00
MACH 161	Metallurgy	3.00
MACH 162	Blueprint Reading for Machine and Related Industries	3.00

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The requirements for this program of study are effective beginning the semester shown above. If you began working on this program before the effective semester, you may not be affected by the changes. Consult with the program contact person or the department chair to determine your eligibility to complete the program under previous requirements.

Previous Versions:

[Advanced Manufacturing Technology: Basic Manual Machine Tool Technology](#) - effective Fall 2021

[Machine Tool Technology: Basic Manual Machine Tool Technology](#) - effective Fall 1981

Course Prerequisites and Advisories:

Courses in a program of study may have prerequisites or advisories; that is, courses that must or should be completed before taking that course. Please check for prerequisites or advisories by clicking on the course numbers in the Program Requirements section.

It is important that students who are completing an Associate Degree and desire to transfer to a four-year institution meet with a counselor to plan their lower division coursework. While many majors at SRJC are intended to align with lower division major preparation required by California public universities, specific lower-division major requirements vary among individual campuses. See a [counselor](#), visit the [Transfer Center](#), and check [Guides For Transfer in Specific Majors](#), and [ASSIST](#) to review transfer preparation guides for specific schools and majors.

Notes:

Certificate will be awarded upon successful completion of all courses with a grade of "C" or better.