

**ACCELERATED
TRAININGINSTITUTE**

Machine Shop 101 Course

Instruction Hours	29
Study Hours	72.5
Length	1 to 12 Months
Modality	Self-paced, 100% online



Machine Shop 101 Course Description

This comprehensive Machine Shop Course comes in 3 sections: Section 1—Lathe: More than 12 hours of detailed instruction on the set-up and operation of the Machine Lathe. Students will learn how to setup the machine, turn, bore, thread, knurl and taper metal. Section 2—The Vertical Milling Machine: More than 12 hours of video instruction detailing everything the student needs to know to run a vertical mill including fly cutting, indexing, boring, milling aluminum, steel and plastics, clamping, fixturing, digital read-out and more. Section 3—General Machine Shop Techniques: More than 5 hours of video. Students learn how to properly operate all the support equipment needed in a shop: belt sanders, bead blasters, grinders, and surface grinders, plus learn how to sharpen drill bits, remove broken screws, detailed shop planning and set-up, and advanced equipment and techniques.

Students will learn from a professional currently working in the field with more than 3 decades of experience. Students will see up close views of the instruction so they can quickly learn the fine detail of precision Machine Shop. Student's study and complete the course at a pace they control, with sufficient retention of the knowledge to pass their exams with a score of 80% or higher.

Objectives

Upon successful completion, this course results in a Certificate in Machine Shop Theory, preparing an individual for entry-level employment or pre-apprentice positions in the Machine Shop trade in positions classified under Machinist (SOC 51-4041 Idaho Department of Labor). Examples of pre-apprentice position titles are Machine Technician, Millwright, Aircraft Systems Technician, and Engine and Machines Technician. Additionally, this course prepares individuals for employment in positions involving entry-level Machine Shop work classified as “maintenance” under General Maintenance and Repair (SOC 49-9042 Idaho Department of Labor) in position titles such as Maintenance, Maintenance Mechanic, and Facilities Maintenance Technician. Unless required by an employer, no certification, license, or registration is required for most employees working in the Machine Shop trade or for Machine Shop work performed as part of maintenance jobs.

1. Certificates of this School do not qualify an individual to work as a registered or licensed, independent Contractor.
2. Machinists train in many ways: informally on the job, in apprenticeship programs, at vocational schools, and in community and/or technical colleges. To boost the skill level of machinists, a number of certifications including Journey-level certification programs are also now available from state apprenticeship boards after completing an apprenticeship. Though special educational credentials or certification(s) are not required to do Machine Shop work, it can lead to better job opportunities.
3. For more information, visit www.bls.gov.



Equipment and materials used in this course include: An internet-capable computer, internet connection, web browser, online examinations.

Instructional Mode: Distance education not in real time. All instruction is provided via pre-recorded video lessons and online examinations. Lessons occur at a time and location determined by the student.

Method of Instruction: This course is taught in pre-recorded video instruction; however, the students can access instructors whenever they have technical questions or need assistance with completing the coursework. Students submit their questions by email to faculty@atitradeschools.com, after which they will receive an email reply and/or a telephone call from a Student Support Specialist.

Testing and Certificate Requirements: When you complete the video instruction in the Machine Shop Course, you will take an online examination to test your knowledge. Exams are online, not timed, and are open book, open video. Once started, an online exam may be suspended but must be completed within 60 days. When you pass all video instruction exams with a score of 80% or higher, you will receive a Machine Shop Theory Certificate.

Grading System: Students are graded on a pass/fail basis.

Passing Grade: A passing grade is given to a student who achieves a score of 80% or higher on all examinations in the Machine Shop Course.

Failing Grade: A failing grade is given to a student who has failed to achieve a score of 80% or higher on all examinations in the Machine Shop Course.

Machine Shop 101 Course Outline

Lesson	Title
Lesson 1	The Lathe
Lesson 2	The Vertical Mill
Lesson 3	General Machine Shop