

Age Group	Percentage
18-24	~5%
25-34	~25%
35-44	~20%
45-54	~15%
55-64	~10%
65-74	~5%
75-84	~2%
85+	~1%

Agreement Name	Machine Tool Technology
Agreement Reviewed/Revised	2024 – 2025

College	College Course	College Programs	ACC
Hennepin Technical College	MACH 1205 – Machine Tool Technology	<ul style="list-style-type: none"> • Manufacturing Engineering Technology (A.A.S. – 60 cr.) • Manufacturing Technician (Cert. – 30 cr.) 	2 of 3 credits
St. Cloud Technical & Community College	MACH 1503 – Machine Tool Technology I	<ul style="list-style-type: none"> • CNC & Advanced Manufacturing (A.A.S. – 60 cr.) • CNC & Advanced Manufacturing (Diploma – 54 cr.) 	3 of 4 credits
	OR TECH 1550 – Basic CADD	CNC & Advanced Manufacturing (A.A.S. – 60 cr.; Diploma – 54 cr.)	2 of 2 credits

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Course Learning Outcomes

1. Completion of milling projects on a vertical mill.
2. Completion of various lathe operations on the engine lathe.
3. Completion of bench projects utilizing hand tools.
4. Understand the importance of proper machine setup.
5. Proficiency in using band saws to rough cut machining projects.
6. Completion of drilling projects on metal working equipment.
7. Proficiency in operation and set up of pedestal grinder.
8. Proficiency in using linear measuring tools such as rules, micrometers, and vernier and digital calipers.
9. Application of safe work habits around all metalworking equipment and co-workers.

Assessments

See CTEDCreditMN.com website for SAMPLE assessments.

Students will also successfully demonstrate all performance outcomes as stated on the Assessment checklists available at. Mastery of 75% of the checklist will meet the college credit requirement.

Text for reference:

- SCTCC: Krar, Steve & Check, Albert: Technology of Machine Tools 7th Ed. McGraw Hill. ISBN: 13: 978-0-07-830722-5
- Machinery's Handbook. Most Current Ed. Industrial Press Inc. NOTE: High School faculty may choose their own text.

Recommended Industry-Recognized Certification or Comprehensive Assessment – High School & College

Certification/ Assessment	Vendor	Other Information
Machining II	You Science	www.youscience.com
TBD	NOCTI	www.nocti.org
TBD	Project Lead the Way	www.pltw.org