

Machine Tool Technology

Machine Tool Technology Associate in Applied Science

Mission Statement:

The mission of the Machine Tool Technology program is to provide the college's local service area with a pool of skilled entry-level machinists, toolmakers, CNC operators and CNC programmers. The program will graduate students who can enter the job force with little supervision and will be trained on equipment that is current with industry

Entrance Requirements:

Acceptable placement test score(s), plus high school diploma or GED

Type of Program:

Day or evening

Employment Opportunities:

Large and small machine shops and manufacturing companies

- This program trains students in shaping metal by using hand tools and machine tools such as milling machines, engine lathes, surface grinders, drill presses and CNC equipment
- This associate degree program meets the academic requirements of the South Carolina Chapter of the National Tooling and Machining Association Apprentice Program.

Recommended Program Schedule

First Semester – Fall

MTT	105	Machine Tool Math Applications	3.0
MTT	120	Machine Tool Print Reading	3.0
MTT	121	Machine Tool Theory I	3.0
MTT	122	Machine Tool Practice I	4.0

Second Semester – Spring

MAT	170	Algebra, Geometry, and Trigonometry I*/+	3.0
MTT	124	Machine Tool Practice II	4.0
MTT	141	Metals and Heat Treatment	3.0
MTT	243	Advanced Dimensional Metrology for Machinists	3.0

Third Semester – Summer

MTT	126	Machine Tool Practice III	4.0
MTT	241	Jigs and Fixtures I	2.0
		or	
MTT	299	Research in Advanced CNC	3.0
		Humanities/Fine Arts elective**	3.0
		Social Science elective**	3.0

Fourth Semester – Fall

MTT	211	Die Theory	3.0
MTT	222	Tool and Die Making Practice I	4.0
ENG	165	Professional Communications*/++	3.0
		General Education course***/+++	3.0

Fifth Semester – Spring

MTT	224	Tool and Die Making Practice II	4.0
MTT	250	Principles of CNC	3.0
MTT	251	CNC Operations	3.0

MTT	258	CNC Machine Tool CAM	3.0
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Sixth Semester – Summer

MTT	145	Machining of Metals	3.0
MTT	252	CNC Setup and Operations	4.0
CPT	170	Microcomputer Applications	3.0

Total Required Credit Hours: 74.0/75

*General education course

+ MAT 110 recommended if placement allows

++ ENG 101 recommended if placement allows

+++ SPC 205 recommended if placement allows

** See faculty advisor for specific elective recommendations.

*** If taking ENG 101, SPC 205 is required.

Visit <https://www.gvltec.edu/gainful-employment/> for important information about the educational debt, earnings and graduation rates of students who attended programs.