

## Scope and Sequence Machine Shop Technology

Academic Subjects – Career success and postsecondary education success require the same level of college prep coursework. The Pennsylvania Department of Education’s (PDE) focus is to ensure that every student is prepared for college and a career. Academic courses such as applied math or general science cannot be listed on the program’s scope and sequence. PDE’s goal is to have all students perform at the competent or advanced level on the PSSA, and earn the Pennsylvania Skills Certificate on the end-of-program assessment.

	SECONDARY				POSTSECONDARY based on PENN COLLEGE OF TECHNOLOGY			
	Ninth Grade	Tenth Grade	Eleventh Grade	Twelfth Grade	Semester One	Semester Two	Semester Three	Semester Four
<b>Technical Units</b>		Fundamentals and Safety  Blue Print Interpretation, Measurement & Benchwork  Pedestal Grinder & Band Saw  Drill Press  Lathe  Milling Machine  Surface Grinder  Job Seeking/Keeping Skills	Blue Print Interpretation & Measurement  Lathe  Milling Machine  Surface Grinder  Inspection  CNC-Concepts  Certification  Job Seeking/Keeping Skills	CNC-Vertical Milling  CNC Turning Center  CNC Wire Electrical Discharge Machine  CAD/CAM Programming  Certification	MTT 113: Basic Metalworking I  MTT 114: Metalworking II  MTT 116: Lathe Applications I  MTT 117: Lathe Applications II	CIM 101: Basic Machine Tool Programming  MTT 123: Machining Processes  MTT 126: Metrology/Quality Control	CIM 123: CNC Programming and Machining  MTT 210: Tool Technology	CIM 205: Electrical Discharge Machining  CIM 220: CAD/CAM  MTT 215: Abrasive Machining and Heat Treatment
<b>English</b>	College Prep English I	College Prep English II	College Prep English III	College Prep English IV		ENL 111: English Comp I	SPC 201: Interpersonal Communications	
<b>Math</b>	Algebra I	Algebra II	Geometry	College Prep Math (recommended)	MTH 180: College Algebra and Trig I	MTH 182: College Algebra and Trig II		

<b>Science</b>	Biology	Chemistry	Physics				PHS 114: Physics w/Technological Applications	
<b>Humanities</b>	Civics	American History	World Studies					_SSE: Elective: Social Science
<b>Other Required Courses/ Electives</b>	Foreign Language I (recommended)	Foreign Language II (recommended)				SAF 110: Occupational Health and Safety		