

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.

Subject (Hours)	Secondary School				Postsecondary Institution			
	Grade 9 (Hours)	Grade 10 (Hours)	Grade 11 (Hours)	Grade 12 (Hours)	First Semester	Second Semester	Third Semester	Fourth Semester
Technical		Fundamentals and Safety	Measurement	CNC-Vertical Milling	MTT 113: Basic Metalworking I	CIM 101: Basic Machine Tool Programming	CIM 123: CNC Programming and Machining	CIM 205: Electrical Discharge Machining
		Blue Print Interpretation, Measurement & Bench work	Lathe	CNC Turning Center	MTT 114: Metalworking II	MTT 123: Machining Processes	MTT 210: Tool Technology	CIM 220: CAD/CAM
		Pedestal Grinder & Band Saw	Milling Machine	CNC Wire Electrical Discharge Machine	MTT 116: Lathe Applications I	MTT 126: Metrology/Quality Control		MTT 215: Abrasive Machining and Heat Treatment
		Drill Press	Surface Grinder	CAD/CAM Programming	MTT 117: Lathe Applications II			
		Lathe	Inspection	Measurement				
		Milling Machine	CNC-Concepts	Job Seeking/Keeping Skills				
		Surface Grinder	Job Seeking/Keeping Skills					
		Job Seeking/Keeping Skills						
English	College Prep English 9	College Prep English 10	College Prep English 11	College Prep English 12		ENL 111: English Comp I	SPC 201: Interpersonal Communications	
Math	Algebra I	Geometry	Algebra II	Trigonometry	MTH 180: College Algebra and Trig I	MTH 182: College Algebra and Trig II		
Science	Accl Integrated Science	Biology	Chemistry				PHS 114: Physics w/Technological Applications	
Humanities	Citizenship	World Cultures	American History I	American Government				_SSE: Elective: Social Science
Other	Physical Education	Physical Education	Physical Education	Physical Education	SAF 110: Occupational Health and Safety			
	Health	Health	Driver's Ed Theory					