

Advanced Manufacturing Technology 9

Reporting Standards

AMT-9.1	Demonstrate proper personal protective techniques.
AMT-9.2	Demonstrate safe set up operations of mills, lathes and sawing machines.
AMT-9.3	Demonstrate general machining operations on a lathe and mill.
AMT-9.4	Demonstrate safe lathe turning operations.
AMT-9.5	Demonstrate safe milling operations.
AMT-9.6	Demonstrate blueprint reading capabilities for views and line types
AMT-9.7	Demonstrate precision and semi-precision measurement.
AMT-9.8	Demonstrate proper process planning.
AMT-9.9	Demonstrate proper finishing techniques.
AMT-9.10	Demonstrate time management skills.
AMT-9.11	Demonstrate the writing of conversational programs
AMT-9.12	Demonstrate general machining math skills

Learning Targets

AMT-9.1 Demonstrate proper personal protective techniques.				
	Limited	Developing	Proficient	Exemplary
AMT-9.1.1	I can select and wear proper PPE on a daily basis with guided direction.	I can wear PPE and dress properly for the shop with reminders.	I can, with appropriate reminders, wear PPE and dress properly for the shop.	I can wear PPE and dress properly for the shop without any reminders.

AMT-9.2 Demonstrate safe set up operations of mills, lathes and sawing machines at grade level				
	Limited	Developing	Proficient	Exemplary
AMT-9.2.1	With guided direction, I can safely operate milling equipment using techniques learned to install and uninstall tooling, turn on and off safely, set feeds and speeds and safely set offsets	I can safely operate milling equipment using techniques learned to install and uninstall tooling, turn on and off safely, set feeds and speeds and safely set offsets with frequent support	I can safely operate milling equipment using techniques learned to install and uninstall tooling, turn on and off safely, set feeds and speeds and safely set offsets with appropriate support	I can safely operate milling equipment using techniques learned to install and uninstall tooling, turn on and off safely, set feeds and speeds and safely set offsets
AMT-9.2.2	With guided direction, I can safely operate a lathe using techniques learned to install and uninstall tooling, turn on and off safely, set	I can safely operate a lathe using techniques learned to install and uninstall tooling, turn on and off safely, set feeds and speeds and	I can safely operate a lathe using techniques learned to install and uninstall tooling, turn on and off safely, set feeds and speeds and	I can safely operate a lathe using techniques learned to install and uninstall tooling, turn on and off safely, set feeds and speeds and

	feeds and speeds and safely set	safely set offsets with frequent support	safely set offsets with appropriate support	safely set offsets
AMT-9.2.3	With guided direction, I can safely operate a horizontal saw using techniques learned to install and uninstall tooling, turn on and off safely, set feeds and speeds and safely set	I can safely operate a horizontal saw using techniques learned to install and uninstall tooling, turn on and off safely, set feeds and speeds and safely set offsets with frequent support	I can safely operate a horizontal saw using techniques learned to install and uninstall tooling, turn on and off safely, set feeds and speeds and safely set offsets with appropriate support	I can safely operate a horizontal saw using techniques learned to install and uninstall tooling, turn on and off safely, set feeds and speeds and safely set offsets

AMT-9.3 Demonstrate general machining operations on a lathe and mill.

	Limited	Developing	Proficient	Exemplary
AMT-9.3.1	With guided direction, I can drill a hole to the designated size, in a predetermined location, tap a hole to a specific depth and thread size or ream a hole to size	I can drill a hole to the designated size, in a predetermined location, tap a hole to a specific depth and thread size or ream a hole to size with frequent support.	I can drill a hole to the designated size, in a predetermined location, tap a hole to a specific depth and thread size or ream a hole to size with	I can consistently and independently drill a hole to the designated size, in a predetermined location, tap a hole to a specific depth and thread size or ream a hole to size

AMT-9.4 Demonstrate safe lathe turning operations.

	Limited	Developing	Proficient	Exemplary
AMT-9.4.1	With guided direction, I can safely use work and tool-holding accessories while setting up and programming for facing, turning, grooving or threading operations	I can safely use work and tool-holding accessories while setting up and programming for facing, turning, grooving or operations with frequent support	I can safely use work and tool-holding accessories while setting up and programming for facing, turning, grooving or threading operations with appropriate support	I can consistently and independently use work and tool-holding accessories safely, while setting up and programming for facing, turning, grooving or threading operations

AMT-9.5 Demonstrate safe milling operations.

	Limited	Developing	Proficient	Exemplary
AMT-9.5.1	With guided direction, I can safely use an edge finder to set the point of origin within 0.002" according to a blueprint.	I can safely use an edge finder to set the point of origin within 0.002" according to a blueprint, with frequent support.	I can safely use an edge finder to set the point of origin within 0.002" according to a blueprint, with appropriate support.	I can consistently and independently use an edge finder to set the point of origin within 0.002" safely according to a blueprint.
AMT-9.5.2	With guided direction, I can safely mill surfaces to +/- 0.005" using end mills, according to a blueprint.	I can safely mill surfaces to +/- 0.005" using end mills, according to a blueprint with frequent support.	I can safely mill surfaces to +/- 0.005" using end mills, according to a blueprint with appropriate support.	I can consistently and independently mill surfaces to +/- 0.005" safely using end mills, according to a blueprint

AMT- 9.6 Demonstrate blueprint reading capabilities for views and line types				
	Limited	Developing	Proficient	Exemplary
AMT-9.6.1	With guided direction, I can identify views or line types that represent features on a blueprint	I can identify views or line types that represent features on a blueprint with frequent support.	I can identify views or line types that represent features on a blueprint with appropriate support.	I can consistently and independently identify views or line types that represent features on a blueprint.

AMT- 9.7 Demonstrate precision and semi-precision measurement.				
	Limited	Developing	Proficient	Exemplary
AMT-9.7.1	With guided direction, I can read a ruler within 1/32" or a micrometer within .002"	I can read a ruler within 1/32" or a micrometer within .002" with frequent support	I can read a ruler within 1/32" or a micrometer within .002" with appropriate support	I can consistently and independently read a ruler within 1/32" or a micrometer within .002"

AMT- 9.8 Demonstrate proper process planning				
	Limited	Developing	Proficient	Exemplary
AMT-9.8.1	With guided direction, I can select the proper cutting tools from the blueprint	I can select the proper cutting tools from the blueprint with frequent support	I can select the proper cutting tools from the blueprint with appropriate support	I can consistently and independently select the proper cutting tools from the blueprint.
AMT-9.8.2	With guided direction, I can select the proper tool holding accessories	I can select the proper tool holding accessories with frequent support	I can select the proper tool holding accessories with appropriate support	I can consistently and independently select the proper tool holding accessories
AMT-9.8.3	With guided direction, I can formulate a process plan using coordinates from blueprints for programming	I can formulate a process plan using coordinates from blueprints for programming with frequent support	I can formulate as directed by the teacher a process plan using coordinates from blueprints for programming with appropriate teacher support	I can consistently and independently formulate a process plan directed by the teacher using coordinates from blueprints for programming with limited teachers support

AMT-9.9 Demonstrate proper finishing techniques.				
	Limited	Developing	Proficient	Exemplary
AMT-9.9.1	With guided direction, I can demonstrate deburring techniques without the rounding of edges with a file.	I can demonstrate deburring techniques without the rounding of edges with a file with frequent assistance.	I can demonstrate deburring techniques without the rounding of edges with a file with the appropriate assistance.	I can consistently and independently demonstrate deburring techniques without the rounding of edges with a file.

AMT- 9.10 Demonstrate time management skills.				
	Limited	Developing	Proficient	Exemplary
AMT-9.10.1	With guided direction, I can focus on safely completing projects and tasks in a timely manner	I can focus on safely completing projects and tasks in a timely manner with frequent assistance	I can focus on safely completing projects and tasks in a timely manner appropriate assistance	I can consistently and independently focus on safely completing projects and tasks in a timely manner,

AMT- 9.11 Demonstrate the writing of conversational programs				
	Limited	Developing	Proficient	Exemplary
AMT-9.11.1	With guided direction, I can focus on writing safe conversational programs with coordinates in their proper axis	I can focus on writing safe conversational programs with coordinates in their proper axis frequent assistance	I can focus on writing safe conversational programs with coordinates in their proper axis with appropriate assistance	I can consistently and independently focus on writing safe conversational programs with coordinates in their proper axis

AMT- 9.12 Demonstrate general machining math skills				
	Limited	Developing	Proficient	Exemplary
AMT-9.12.1	With guided direction, I can calculate fractions and decimals using a calculator.	I can calculate fractions and decimals using a calculator with frequent assistance	I can calculate fractions and decimals using a calculator with appropriate assistance	I can consistently and independently calculate fractions and decimals using a calculator