

COMPLETER: Manufacturing and Machine Technologies

CREDITS: 6

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	✦ AP Language and Composition	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I (1)	Geometry (1)	Algebra II (1)	Higher Level Math (1)
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	World Language (1)	World Language (1)		
Completer Program Requirements			Manufacturing & Machine Technologies I (3)	Manufacturing & Machine Technologies II (3)
Career Specific Electives (may be taken any year offered after prerequisites have been satisfied)	✦ Recommended AP Connections: AP Calculus AB (1), AP Physics I (1) Advanced Design Applications (1), Technological Design (1), Math Elective beyond Alg. II (.5-1), Business Communications & Keyboarding (1), Honors Calculus, Adv. AP Calculus BC (1), Chemistry II (1), Issues in American Society (.5), Public Speaking (.5), Technological Issues & Impacts (1), Internship (.5-1)			
8 credits possible per year				
Value Added:	17 Articulated Credits			
From:	Community College of Baltimore County, Catonsville			
Program:	Computer Automated Manufacturing and Industrial Technology			
End of Program Test:	Measurement, Materials, and Safety and Job Planning Bench Work and Layout			
Industry:	NIMS (National Institute for Metalworking Skills)			
Taken:	During Manufacturing and Machine Technologies I			



MANUFACTURING AND MACHINE TECHNOLOGIES – Six Credit Completer

MANUFACTURING AND MACHINE TECHNOLOGIES

Course: 558637-I (Articulated) 3 credits

558737-II (Articulated) 3 credits

This program prepares students for a beginning career as a machinist, production operator, quality control technician, or manufacturing engineering technologist in the computer-enhanced manufacturing environment. The program focuses heavily on hands-on experiences using industrial tools and advanced computer numerically controlled (CNC) equipment. Machinists use their knowledge and understanding of metals and their skills with tools to design, plan, and carry out the processes needed to make products with precise specifications. An engineering technologist works closely with engineers to design, develop, and test

industrial and consumer products by applying mathematics and science. Students will learn about workplace safety, teamwork, metallurgy, computer aided manufacturing software, robotics, control systems, project management, fabrication, lean manufacturing, and quality assurance. Throughout the course, students will work toward specific certifications from the National Institute of Metalworking Skills (NIMS).

Prerequisites and other notes: These courses are part of the Manufacturing and Machine Technologies completer program. At the end of this program, students will take the NIMS Measurement, Materials, and Safety, Job Planning, Bench Work and Layout exam. (Other tests optional for qualified students.)