



Recommended Program of Study for: Manufacturing



Career Cluster: Manufacturing		Pathway Name: Industrial Systems and Maintenance		
9th Grade	10th Grade	11th Grade	12th Grade	Postsecondary Schools
English 9	English 10	English 11	English 12	
Algebra I	Geometry	Algebra II or equivalent	Math Elective	
Physical Science	Biology	Chemistry	Physics	
World History	United States History I	United States History II	Government/Economics	
Career Preparedness	Health/Elective	Elective	Elective	
Physical Education	Elective	Elective	Elective	
Architecture, Construction & Manufacturing	Introduction to Manufacturing	Industrial Systems and Maintenance I	Industrial Systems and Maintenance II	
Industrial Systems and Maintenance III	Industrial Systems and Maintenance IV	Semiconductors	NCCER Industrial Maintenance –E & I 1	
NCCER Industrial Maintenance – E & I 2	NCCER Industrial Maintenance –E & I 3	NCCER Industrial Maintenance –Mechanical 1	NCCER Industrial Maintenance –Mechanical 2	
NCCER Industrial Maintenance – Mechanical 3	Safety and Health Regulations	Senior Career Pathway Project-Manufacturing		
Career and Technical Education and /or Foreign Language and /or Arts Education (3 credits)				Career and Technical Student Organizations
Work-based Learning	Secondary	– Articulation –		Postsecondary
Job Shadowing Internship / Work Experience Career Day / Fair Field Trips / Guest Speakers				SkillsUSA
CTE Assessments	Available Industry Certifications		High Wage-High Skill- High Demand Careers	
	Certification	Provider		



Recommended Program of Study for: Manufacturing



Career Cluster: Manufacturing		Pathway Name: Precision Machining		
9th Grade	10th Grade	11th Grade	12th Grade	Postsecondary Schools
English 9	English 10	English 11	English 12	
Algebra I	Geometry	Algebra II or equivalent	Math Elective	
Physical Science	Biology	Chemistry	Physics	
World History	United States History I	United States History II	Government/Economics	
Career Preparedness	Health/Elective	Elective	Elective	
Physical Education	Elective	Elective	Elective	
Architecture, Construction & Manufacturing	Introduction to Precision Machining	Introduction to Computer Numerical Control	Intermediate Computer Numerical Control	
Computer –Aided Design and Computer Aided Manufacturing I	Computer –Aided Design and Computer Aided Manufacturing II	Coordinate Measuring Machine	Introduction to Lathe	
Introduction to Milling, Drill Press and Surface and Grinder	Intermediate Lathe and Bench work	Intermediate Mill and Surface Grinder	Safety & Health Regulations	
Senior Career Pathway Project- Manufacturing				
Career and Technical Education and /or Foreign Language and /or Arts Education (3 credits)				Career and Technical Student Organizations
Work-based Learning	Secondary	– Articulation –		Postsecondary
Job Shadowing Internship / Work Experience Career Day / Fair Field Trips / Guest Speakers				TSA
CTE Assessments	Available Industry Certifications		High Wage-High Skill- High Demand Careers	
	Certification	Provider		



Recommended Program of Study for: Manufacturing



Career Cluster: Manufacturing		Pathway Name: Production		
9th Grade	10th Grade	11th Grade	12th Grade	Postsecondary Schools
English 9	English 10	English 11	English 12	
Algebra I	Geometry	Algebra II or equivalent	Math Elective	
Physical Science	Biology	Chemistry	Physics	
World History	United States History I	United States History II	Government/Economics	
Career Preparedness	Health/Elective	Elective	Elective	
Physical Education	Elective	Elective	Elective	
Architecture, Construction & Manufacturing	Introduction to Manufacturing	Direct Current	Alternating Current	
Semiconductors	Digital Electronics	Semiconductors	Electromechanical Controls	
Introduction to Robotics	Robotics Application	Safety and Health Regulations	Senior Career Pathway Project-Manufacturing	
Career and Technical Education and /or Foreign Language and /or Arts Education (3 credits)				Career and Technical Student Organizations
Work-based Learning	Secondary	- Articulation -	Postsecondary	
Job Shadowing Internship / Work Experience Career Day / Fair Field Trips / Guest Speakers				SkillsUSA
CTE Assessments	Available Industry Certifications		High Wage-High Skill- High Demand Careers	
	<u>Certification</u>	<u>Provider</u>		



Recommended Program of Study for: Manufacturing



Career Cluster: Manufacturing		Pathway Name: Manufacturing Technologies		
9th Grade	10th Grade	11th Grade	12th Grade	Postsecondary Schools Career and Technical Student Organizations
English 9	English 10	English 11	English 12	
Algebra I	Geometry	Algebra II or equivalent	Math Elective	
Physical Science	Biology	Chemistry	Physics	
World History	United States History I	United States History II	Government/Economics	
Career Preparedness	Health/Elective	Elective	Elective	
Physical Education	Elective	Elective	Elective	
Manufacturing 1	Manufacturing 2	Manufacturing 3		
Career and Technical Education and /or Foreign Language and /or Arts Education (3 credits)				
Work-based Learning	Secondary	- Articulation -	Postsecondary	
Job Shadowing Internship / Work Experience Career Day / Fair Field Trips / Guest Speakers				
CTE Assessments	Available Industry Certifications		High Wage-High Skill- High Demand Careers	
	<u>Certification</u>	<u>Provider</u>		