

# Machine and Forming Technology



## Description of Pathway:

The Manufacturing and Product Development pathways emphasize real-world, occupationally relevant experiences. This industry sector is an important part of California's economy producing a wide range of products.

District: Livermore Valley Joint Unified School District

School Site: Livermore and Granada

LEVELS	GRADE	English/ Language Arts	Math	Science	Social Studies	Career Technical Education Courses	Other Required Courses or Recommended Electives	Related Occupations, Certifications, and Student Clubs
								Occupations Requiring less than a Baccalaureate Degree
SECONDARY	9	English	Algebra, Geometry,	Earth Science or Forensic Science	Social Science 9	Manufacturing, Metals Industry 1-2 Manufacturing & Product Development 1	Physical Education, Health, World Language	➤ Machine Operator ➤ Installation Apprentice ➤ Assembler  Occupations Requiring a Baccalaureate Degree  ➤ Manufacturing Engineer ➤ Mechanical Engineer ➤ Design Engineer ➤ Industrial Technology Educator ➤ Teacher
	10	English 10/Honors	Geometry or Algebra II	Biology	World History or AP World History	Manuf, Metal Indus 3-4 Manuf & Prod Dev 2	Physical Education, World Language, VPA or CADD	
	11	English 11/Honors	Algebra II, Adv Algebra or Pre-Calclus	Chemistry	U.S. History, Honors U.S. History, or AP U.S. History	Manuf, Metal Indus 5-6	Welding, World Language, or VPA	
	12	English Composition or other English Electives	Pre-Calculus, Calculus, AP Calculus, or Statistics	Conceptual Physics or Physics	Civics/Economic or AP Civics/Economics	Manuf, Metal Indus 7-8	Robotics, World Language or VPA	
*Articulated Dual Credit courses may be taken/moved to the secondary level for articulation/dual credit purposes. <i>Italicized</i> courses are Las Positas (LPC)								Industry recognized Certifications related to this Pathway
POSTSECONDARY	Year 13	English	Geometry	Chemistry, Physics, or Astronomy	Humanities	<i>WLDT 60A or 61AL</i>	GE req.	➤ Teaching Credential ➤ AS/Cert Vacuum Technology  ➤ AS/Cert Welding Technology ➤ Industrial Electrician Cert  Student Clubs or Organizations
	Year 14			Geology	Liberal Studies	<i>WELD 62A, 62AL, 70 PHYS 10</i>	Other GE req.	
	Year 15						Upper Division Core	
	Year 16						Upper Division Core	

## Work-Based Learning Opportunities

- Job-Shadows
- Internships
- Teacher's Aide
- JA Mentor
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