

## Buchanan High School: Engineering Design - Program of Study

This Program of Study should be customized with course titles and appropriate high school graduation requirements as well as college entrance requirements.

Industry Sector:	<b>Engineering and Architecture</b>
Career Pathway:	<b>Engineering Design</b>

**Note: All courses are subject to change. Always see a counselor for advising.**

LEVELS	GRADE	Career Technical Education Courses	English/ Language Arts	Math	Science	Social Studies	Other Required Courses or Recommended Electives	SAMPLE Occupations Relating to this Pathway
SECONDARY	7							<b>Occupations Requiring Less Than a Baccalaureate Degree</b>  ► Drafter: CAD, Electrical, and mechanical          <b>Occupations Requiring Baccalaureate Degree</b>  ► Architect
	8							
	9	Intro to Engineering Design (PLTW)	English 9 Honors	Math 1 Math 2 Honors	Health Biological Links To Energy and Environment	AP World Geography	Physical Education World Language	
	10	Intro to Engineering Design (PLTW)	English 10 Honors	Math 2 Honors Math 3 Honors	Chemistry/Environmental Engineering	AP World History	Physical Education World Language Fine Arts	
	11	Principles of Engineering (PLTW)	English 11 Honors	Math 3 Honors Statistics Adv. Math/AMA	Physics	AP US History	Physical Education <b>AP Computer Principles – Highly Recommended!</b>	
	12	Principles of Engineering (PLTW)	English 12 Honors	Math 3 Honors Statistics Adv. Math/AMA	Anat/Phys Physics AP Bio, Chem, Physic Energy Technology 1	Government/Economics	Physical Education	

								► Project Engineer: Design and Manufacturing	
<b>POST-SECONDARY</b>	13	CCC: Engr 10, Engr 2, or Engr 40 CSUF: ECE71, ME1, ME 2, ME 26	English 125, 126 English 1A CSUFL English 10	CSUF;; Math 75 and Math 76	CCC: Chemistry 1A, Physics 4A, Physics 4B CUSF Biology 1A, Chemistry 1A, Physics 4A	CSUF: History 11 or 12		<b>Industry recognized certifications; licenses or credentials related to this pathway.</b> ►  ►  ►	
	14	CCC: Engr 4 or 6, Engr 8 CSUF: CE20, ECE 91, ME 31, ME 32. ME 95		CSUF: Math 77 and Math 81	CCC: Physics 4B CSUF: Physics 4B and 4C	CSUF: Phil 20, Pol Sci 2			
	Year 15								
	Year 16								