

# ENGINEERING, CONSTRUCTION & DESIGN (ECD)



## Rosemont High School

rosemont.scusd.edu/engineering-construction-design

916-395-5130

ECD can be found on Facebook, Instagram, Twitter, and Snapchat: ECD@RHS

### Mission

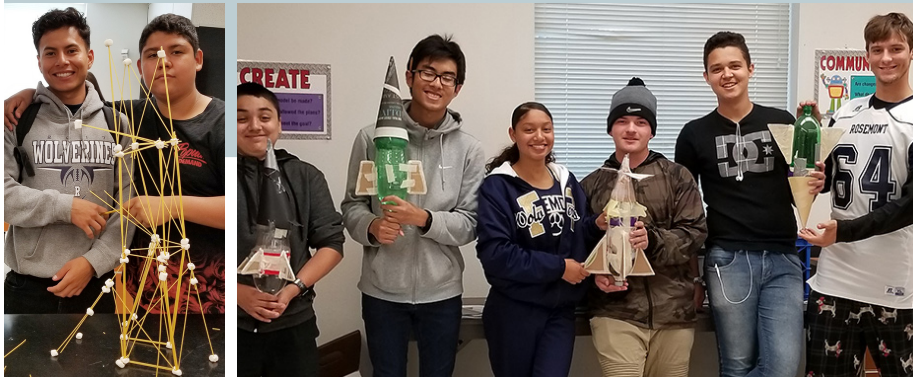
Engineering, Construction, and Design (ECD) students thrive in a challenging, yet supportive integrated academic program while exploring and solving real world problems through industry sponsored project-based experiences.

### Description

Through real world experiences and examples, Engineering, Construction, and Design students will study and implement the engineering design process using industry-standard drafting techniques and tools (by hand and CADD.) They research professions, review failure and ethics, and engage with electronics programming, robotics, alternative energy uses, and constructing techniques using professional quality tools. Throughout all experiences in ECD, students will acquire professional skills and build career awareness.



Increasing  
*creative confidence*  
through  
**Linked Learning**



WHAT I LIKE  
ABOUT  
**pathway**

### PATHWAY STUDENT OUTCOMES

Through rigorous coursework, all students will complete their A-G requirements and prepare for opportunities to pursue post secondary studies and/or explore careers in technical industries and/or skilled trades. Students can choose to focus primarily on engineering and design or the skilled construction trades. Students have the ability to earn industry-standard certifications as well as college credit through the Los Rios Community College district.

“ECD gives me the **ability to work with my hands** and use my knowledge.”— Allister Arriaga, 10<sup>th</sup> grade

“It’s [ECD] **bringing me closer to my dream of computer programming as a career.**”

— Patrick Lomperski, 11<sup>th</sup> grade

“That was so **cool and so scary at the same time!**”

— Maishalya Wright, 11<sup>th</sup> grade,  
while using the mitre saw for the first time

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HIGH SCHOOL COURSES		PROGRAM OF STUDY			RELATED OCCUPATIONS
<b>SUBJECT</b>	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>	<b>High School Diploma</b> Apprenticeship Program leading to Journey level Master Tradesperson
English	English 9	English 10	English 11	English 12	
Math		Math I, II, III+, III+			<b>2 Years College (AA) or Certificate</b> Welder Electrician Carpenter Plumber Pipe Fitter HVAC Installer Drafting Coding
Science	Physics	Biology			
History and Social Science	Geography/Contemporary Global Issues	World History	U.S. History	Economics & Government	<b>4 Years College or more</b> Construction Management Engineering/Design (Mechanical, Civil, Computer, Electrical) Business/Entrepreneurship/Law
Foreign Language, Art and PE	2 years Foreign Language AND 1 year Art Elective, 2 years of P.E. required				
Career Technical Courses	Engineering, Construction, Design	Drafting and Design	Engineering Technology or Construction Technology	Advanced Engineering Technology or Advanced Construction Technology	
	Guest speakers	Visits to Architect's office, current job sites, SMUD training facility, guest speakers	Construction trade career fair	Construction trade career fair	
Work Based Learning Opportunities					

For more information on SCUSD's Linked Learning Pathways, visit [www.scusd.edu/linkedlearning](http://www.scusd.edu/linkedlearning)

## PARTNERS

### Founding Partners:

- APMC
- Northern California MCA
- UA Local #447
- NECA
- IBEW Local #340
- CSU, Sacramento
- SMACNA Sacramento Valley
- SMART 104
- SMUD

### Contributing Industry Members:

- Schetter Electric
- Lawson Mechanical

### Project Consultants:

- RKF Consulting
- Jeff Wright

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