

SCHOOL OF ENGINEERING AND SCIENCES



School of Engineering and Sciences

www.seshs.org

Office 916-433-2960

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Mission

The School of Engineering and Sciences provides open access to a rigorous academic and technical course sequence. We insist on high levels of learning for all students with the ultimate goal of increasing the diversity of the science and engineering workforce living and working in Sacramento.

Description

SES is the first Linked Learning certified engineering pathway in SCUSD. We currently host over 500 students in grades 7-12, with an engineering course sequence extending through all six grades. "SES is the first Linked Learning certified engineering pathway in SCUSD. We currently host over 500 students in grades 7-12, with an engineering course sequence extending through all six grades. Hallmarks of our program such as computer programming, CAD (computer-aided design), and robotics engineering build 21st-century skills. Science and engineering content, skills, and themes are integrated into all courses and unique grade-level units of study are conducted each quarter to address real world problems in science and engineering. Students at SES have a unique opportunity to develop real-world skills in an exciting, project-based environment.

Student Outcomes

- Citizenship
- Problem Solving
- Communication
- Collaboration
- Technology



Increasing
creative confidence
through
Linked Learning

WHAT I LIKE
ABOUT **my**
pathway

STUDENT POPULATION

2011-12

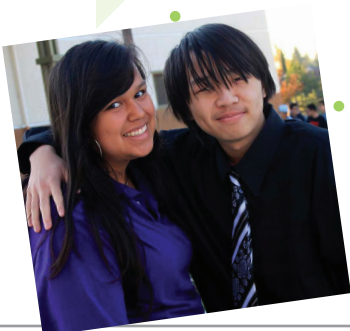
392

2012-13

447

2013-14

514



"School is actually fun now

because of all the hands-on projects
that we do"

"I can't believe I get to

learn about engineering

in 7th grade!"

ENGINEERING AND SCIENCES

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www.seshs.org 916-433-2960
 Instagram: sesrockets
 Twitter: @sesrockets

7th Grade through 12th Grade Program



SUBJECT	MIDDLE SCHOOL AND HIGH SCHOOL COURSES						COLLEGE	RELATED OCCUPATIONS
	7 th	8 th	9 th	10 th	11 th	12 th		
English	ELA 7	ELA 8	ELA 9	ELA 10 or ELA 10 Honors	ELA 11 or ELA 11 AP	ELA 12 or ELA 12 AP	High School Diploma Vehicle/Machine Mechanic Lineman Electrician	
Math	Pre Algebra	Algebra	Geometry	Algebra II	Pre Calculus	Calculus AB AP or Statistics AP	2 Years College (AA) or Certificate	
Science	Life Science 7	Physical Science 8	Physics for Energy-eering	Biology	Chemistry	Advanced Science or Advanced Programming*	Energy Auditor Laboratory Technician Engineering Technician Machinist	
History and Social Science	World History 7	US History 8	Geography/ Contemporary Global Issues	World History or World History AP	US History or US History AP	Civics/Economics	4 Years College or More	
Foreign Language, Art and PE	2 years Foreign Language, 1 year Art Elective, 2 years of P.E. required						Electrical/Mechanical/ Civil/Environmental/ Energy Engineer Architect Computer Programmer/Software Developer Research Scientist Chemist	
Career Technical Courses	Engineering 7 (Basic Computer Programming 1)	Engineering 8 (Basic Computer Programming 2)	Engineering 9 (Principles of Engineering)**	Engineering 10 (Computer Aided Design)**	Engineering 11 (Robotics)	Engineering 12 (Advanced Robotics)	**See below	
Work Based Learning Opportunities	Field Trips	Field Trips	Field Trips/Job Shadows	Field Trips/Job Shadows	Field Trips/Job Shadows/ Internships	Field Trips/Job Shadows/Internships		

*Advanced Programming is articulated with UC Davis. Students completing this course with a C or better will automatically earn 3 college credits

** Engineering 9 and 10 are articulated with CSU Sacramento. Students completing both courses with a C or better will automatically earn 3 college credits.

For more information on SCUSD's Linked Learning Pathways, visit www.scusd.edu/linkedlearning

PARTNERS

- CSU Sacramento
- SMUD
- UC Davis Center for Integrating Computing and STEM Education
- Air Resources Board
- First Robotics
- Society of Women Engineers (SWE)
- SCUSD CTE Department
- ACE – Architectural, Construction and Engineering
- Sacramento City College
- First Lego League
- Institute of Electrical & Electronic Engineers (IEEE)



the James Irvine foundation



linked learning alliance
 PATHWAYS TO COLLEGE AND CAREER SUCCESS

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