

# SD Program of Study

## Engineering & Technology Pathway (Project Lead the Way)

This plan of study should serve as a guide, along with other career planning materials, as you continue your career path. Courses listed within this plan are only recommended coursework and should be individualized to meet each learner's educational and career goals. All plans should meet high school graduation requirements as well as postsecondary entrance requirements.

	GRADE	English	Math	Science	Social Studies/ Sciences	SD Required Electives	Career & Technical Education Courses	SAMPLE Career Options Relating to This Pathway
Personal Learning Plan (PLP) initiated for all students, career and academic advisement and appropriate assessments.								
SECONDARY	9	* English I (01001)	* Algebra I (02052)	* Physical Science (03159)	* World History-Overview (04051)  * World Geography (04001)	* PE/Health  * Fine Art Elective	Introduction to Technology Education (21051)	<ul style="list-style-type: none"> <li>▶ Aeronautical Engineer</li> <li>▶ Aerospace Engineer</li> <li>▶ Agricultural Engineer</li> <li>▶ Agricultural Technician</li> <li>▶ Application Engineer</li> <li>▶ Architectural Engineer</li> <li>▶ Automotive Engineer</li> <li>▶ Biomedical Engineer</li> <li>▶ Biotechnology Engineer</li> <li>▶ CAD Technician</li> <li>▶ Chemical Engineer</li> <li>▶ Civil Engineer</li> <li>▶ Communications Engineer</li> <li>▶ Computer Engineer</li> <li>▶ Computer Programmer</li> <li>▶ Construction Engineer</li> <li>▶ Electrical Engineer</li> <li>▶ Electronics Technician</li> <li>▶ Geothermal Engineer</li> <li>▶ Industrial Engineer</li> <li>▶ Manufacturing Engineer</li> <li>▶ Manufacturing Technician</li> <li>▶ Marine Engineer</li> <li>▶ Mechanical Engineer</li> <li>▶ Metallurgist</li> <li>▶ Mining Engineer</li> <li>▶ Nuclear Engineer</li> <li>▶ Petroleum Engineer</li> </ul>
	10	*English/Literature II (01051) *Speech (01151)	* Geometry (02072)	* Biology (03051)		1 unit total - any combination of:  * World Language or  * Capstone Service Learning or	<b>Pre Requisite Courses</b> Introduction to Engineering Design (21006) <b>or</b> Principles of Engineering (21004) <b>or</b> Digital Electronics (21008)	
	11	*English/Comp III (01102) *American Literature (01054)	Algebra II (02056)	Physics (03151)	* American History-Comprehensive (04101)	Approved Career & Technical Education	<b>Specialized Courses</b> Computer Integrated Manufacturing (21010) <b>or</b> Aerospace Engineering (21013) <b>or</b> Biotechnical Engineering (21014) <b>or</b> Civil Engineering & Architecture (21012)	
	12	* English IV (01004)	Trigonometry (02103)  * AP Calculus (02124) or College Credit Math	* AP Chemistry (03106) or <b>College Science Elective</b>	* U.S. Government-Comprehensive (04151)  * Psychology (04254)	* Personal Finance (22210) or  *Economics (04201)	* Youth Internship (80018) *Senior Experience (80019) Engineering Design and Development (21007) Entrepreneurship (12053)	
POSTSECONDARY	Year 13	Written and Oral Communications	College Level Math	Natural Sciences	Social Studies/ Sciences	Computer Literacy		
	Year 14	Written Communications	Information Literacy			Wellness for Life Arts & Humanities		
	Year 15							
	Year 16							
CAREER CLUSTER CERTIFICATES	<p>OSHA 10 Hour Safety Certification—Construction Industry</p> <p>OSHA 10 Hour Safety Certification—General Industry</p>							

Orange Text - College Level - Dual Credit

\* Classes available through Virtual School

<sup>2</sup> Recommended academic