

## PRE-ENGINEERING CAREER PATHWAY

This Pre-Engineering pathway plan serves as a guide to accompany students, parents, and teachers when planning a student's program/pathway of study to meet the needs and interests of the student's Individualized Learning Plan (ILP).

Education Cluster	Grade	English/ Language Arts (4 credits)	Math (4 credits)	Science (3 credits)	Social Studies (2 credits)	PE/Health (2 credits-0.5 credits per year)	Other	SAMPLE occupations related to this pathway:
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<b>Academic Graduation Requirements</b>	9	English 9 English 9 H	Algebra I Geometry Geometry H	Physical Science Physical Science H	US History I US History I H	PE/Health 9	Language (Required for 4 yr. college)	<b>Entry Level:</b> -CNC Machine Tool Operators -Multiple Machine Tool Setters -CNC Setup Handler/Technician -Maintenance Technician <b>Technical Careers:</b> -CNC Machine Tool Programmers -CNC Machinist -Engineering Technician <b>Professional Careers:</b> -Mechanical Engineers -Advanced programmer -Industrial Systems Engineer -Machine Shop Owner -Research & Design Machinist ... <b>AND MORE!</b> <b>Explore careers and related salary in Naviance.</b>
	10	English 10 English 10 H	Geometry-Basic Geometry Algebra II Algebra II H College Algebra (RWU)	Conceptual Chemistry Chemistry Chemistry H	US History II US History II H AP US History II	PE/Health 10	Language (Required for 4 yr. college)	
	11	English 11 English 11 H AP Language & Composition <i>Recommended: SAT Prep: Critical Reading &amp; Writing</i>	Intermediate Algebra Algebra II Finite Math Pre-Calculus H Statistics AP Statistics College Algebra (RWU) College Pre-Calculus (RWU)	Conceptual Biology Biology Biology H AP Chemistry AP Physics AP Biology	Western Civilization Western Civilization H AP Psychology AP European History AP US Government & Politics AP Macroeconomics	PE/Health 11	Language (Recommended for 4 yr. college)	
	12	English 12/12 H AP Language & Composition AP Literature & Composition AP Research	Dependent on chosen pathway/college requirement/student interest	Dependent on chosen pathway/college requirement/student interest	Dependent on chosen pathway/college requirement/student interest	PE/Health 12	Language (Recommended for 4 yr. college)	
<b>CAREER AND TECHNICAL COURSE PROGRESSION</b>					<b>Work-based Learning</b>	<b>Certifications</b>		
<b>Program Coursework</b>	9	Introduction to Engineering & Design (IED) (1.0 credit)			All students will earn 80-hours of work-based learning through in school experiences/ course work.  Coursework =6.0 required credits.	Students are required obtain OSHA 10 Training.	Recommended: Students obtain additional off-campus WBL hours offered through RIDE and school coordinated events with guidance /college and career coordinator.	
	10	Computer Integrated Manufacturing (CIM) (1.0 credit)						
	11	Principles of Engineering (POE) (1.0 credit)	Algebra II (Required in this pathway) (1.0 credit)	Physics (Required in this pathway) (1.0 credit)				
	12	Dependent college requirement/student interest	Pre-Calculus (Required in this pathway) (1.0 credit)	Dependent on college requirement/student interest				