



2018-2019  
STEM ENDORSEMENT

**Engineering**

*Young Women's Leadership Academy at Arnold*

Grade	Language Arts	Math	Science	Social Studies	Required CTE Courses	Potential Certification Opportunities: <i>Italics are possible new certifications</i>
9 <sup>th</sup>	English 1	Algebra 1	Biology	World Geography	Principles of Applied Engineering (One Credit)	OSHA, Cyber Safety, WFR Employability, WFR Customer Service
10 <sup>th</sup>	English 2	Geometry	Approved 2 <sup>nd</sup> Year Science	World History Or Political Science	Engineering Design & Presentation I (One Credit)	<i>AutoCAD, Revit, <b>Maya, Inventor</b> Electronic System Associate Level 1 and 2 WFR Electronics</i>
11 <sup>th</sup>	AP Literature	Approved 3 <sup>rd</sup> Year Math	Approved 3 <sup>rd</sup> Year Science	U.S. History	Engineering Design & Presentation II (Two Credits)	<b>Microsoft</b>
12 <sup>th</sup>	Approved 4 <sup>th</sup> Year English	Approved 4 <sup>th</sup> Year Math	Approved 4 <sup>th</sup> Year Science	Government (1 semester)  Economics (1 semester)	Practicum in STEM Engineering (Two Credits)	WFR-Engineering Technology,

**Career & Technical Student Organizations:**  
SkillsUSA  
NTHS

**Required Electives:**  
Fine Arts  
Health  
Foreign Language  
Physical Education

**Additional Recommended Electives:**  
Computer Science On-Ramps (1 Credit)  
Entrepreneurship (1 Credit)  
Robotics (1 Credit)  
Principles of AAVT (1 Credit)

**Dual Credit/ AP Offerings:**  
Government      Economics      Calculus  
Biology            Physics            Computer Science  
Spanish Literature Spanish Language English Literature  
English Language

Sample Career Opportunities	High School	On the Job Training	Certificate	Associate's Degree	Bachelor's Degree	Advanced College Degree	Average Annual Salary	Possible Majors for this Pathway
Engineering Manager					X	X	\$131,586	*Civil Engineer *Industrial Engineer *Mechanical Engineer *Chemical Engineer *Petroleum Engineer
Civil Engineer					X	\$84,048		
Petroleum Engineer					X	\$126,566		
Aerospace Engineer					X	\$92,236		
Biomedical Engineer					X	\$88,000		
Agricultural Engineer					X	\$104,222		
Health & Safety Engineer					X	\$80,181		

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