9th Grade Schedule

STEM Academy + Engineering Pathway

Subject	Course	Туре	Notes
English	Literature & Composition I	Core	
Math	Honors Geometry	Core	
Science	Honors Biology	Core	Honors Bio Required Pathway
Social Studies (*)	World Geography	Core	
World Language	Spanish 2	Core Elective	
Engineering Elective	PLTW: Introduction to Engineering Design (IED)	Engineering Pathway	required
Potential Elective (*)	(potential elective if no Social Studies)	Elective	

Not in STEM Academy + Engineering Pathway

Subject	Course	Туре	Notes
English	Literature & Composition I	Core	
Math	Honors Geometry	Core	
Science	Biology	Core	Honors not Required
Social Studies (*)	World Geography	Core	
World Language	Spanish 2	Core Elective	
Engineering Elective	PLTW: Introduction to Engineering Design (IED)	Elective	Reqd for any Engineering
Potential Elective (*)	(potential elective if no Social Studies)	Elective	e.g. Drawing I

^(*) If the student decides to NOT take World Geo, she can select another Elective. However, she will have to bust her b*** in 9th grade to prep herself for 10th grade Social Studies World History – this will be extracurricular work. It is DOABLE and additional resources are available, if she wants to do it.

10th Grade Schedule

STEM Academy + Engineering Pathway

Subject	Course	Туре	Notes
English	Literature & Composition II	Core	Honors optional based on 9th-grade performance
Math	Honors Advanced Algebra	Core	Keeps her on track for AP Calculus
Science	Honors Chemistry	Core	Honors Chem required Pathway
Social Studies	World History	Core	Standard for balance
Engineering Elective	PLTW: Principles of Engineering (POE)	Engineering Pathway	Focuses on mechanics and material strength
Creative Elective	Drawing I A&B	Elective	Drawing I and II needed for AP Studio Design

Not in STEM Academy + Engineering Pathway

Subject	Course	Туре	Notes
English	Literature & Composition II	Core	Honors optional based on 9th-grade performance
Math	Honors Advanced Algebra	Core	Keeps her on track for AP Calculus
Science	ENVIRONMENTAL SCIENCE A&B	Core	e.g. (non-Honor) Env Science if interested
Social Studies	World History	Core	Standard for balance
Elective	Free choice	Elective	
Elective	Drawing I A&B	Elective	Drawing I and II needed for AP Studio Design

11th Grade Schedule

Engineering Pathway

Subject	Course	Туре	Notes
English	Literature & Composition III	Core	Honors optional based on 10th-grade performance
Math	Pre-Calculus A&B	Core	
Science	AP Physics 1 or Honors Physics	Core	Physics Required for Pathway
Social Studies	U.S. History	Core	required
Engineering Elective	Aerospace Engineering	Engineering Pathway	Required for Pathway
Creative Elective	AP STUDIO 2D DESIGN A&B	AP Elective	Builds on previous design course with portfolio development

Non-Pathway (incorporate non-engineering topics)

Subject	Course	Туре	Notes
English	Literature & Composition IV	Core	Honors optional based on 10th-grade performance
Math	Pre-Calculus A&B	Core	
Science	AP or Honors Physics or AP or Honors Science	Core	Physics or other Science
Social Studies	U.S. History	Core	required
Elective	Free choice	(AP) Elective	AP would be good for credit
Creative Elective	AP STUDIO 2D DESIGN A&B	AP Elective	Builds on previous design course with portfolio development

12th Grade Schedule – Engineering Pathway

Engineering Pathway

Subject	Course	Туре	Notes
English	Literature & Composition IV	Core	AP Literature optional for college credit
Math	AP Calculus AB	AP Core	Equals Calc I in college
	AP Calculus AC		Equals Calc I and Calc II in college
Science	AP Physics C	AP Core	Best for Engineering future
(Social Studies)	(must take if not taken in 9 th , but then no 2nd elective)	(Core)	(If 3 rd credit needed)
1 st Elective	PLTW: Engineering Design &	Engineering	Final project tying together skills in
(Engineering)	Development (Capstone)	Pathway	design and engineering
2 nd Elective (*)	Free choice, but N/A if Social Studies	(AP) Elective	AP would be good for credit

6 Key Focus: Complete the Engineering Pathway

W Cumulative Highlights:

- **3+ AP Courses** (the more the better)
- Exposure to Architecture, Civil Engineering, and Urban Planning Concepts.

12th Grade Schedule - Non-Engineering Pathway

No Pathway Completion, but Arts and Design mixed in

Subject	Course	Туре	Notes
English	Literature & Composition IV	Core	AP Literature optional for college credit
Math	AP Calculus AB AP Calculus AC	AP Core	Equals Calc I in college Equals Calc I and Calc II in college
Science	AP Physics C	AP Core	Best for Engineering future
(Social Studies)	(must take if not taken in 9 th , but then no 2nd elective)	(Core)	(If 3 rd credit needed)
1 st Elective	e.g. Graphic Design & Prod	Elective	
2 nd Elective (*)	Free choice, but N/A if Social Studies	(AP) Elective	AP would be good for credit

⁶ Key Focus: Engineering, Arts and Design

W Cumulative Highlights:

- **3+ AP Courses** (the more the better.. e.g. 4+ for KSU, 8+ for GA Tech etc.)
- Added Portfolio in Graphic Design & Animation
- Exposure to Architecture, Civil Engineering, and Urban Planning Concepts.