



Kell STEM Academy

Kell STEM Academy Mission Statement

A program of excellence where students explore and master STEM content.

What is a STEM Academy?

A STEM Academy is a program within a school that allows students who are interested to do in-depth study in the STEM fields. The curriculum for a STEM Academy generally integrates STEM throughout the curriculum.

How is the STEM Academy different than a traditional high school experience?

The Kell STEM Academy is designed to give students the opportunity to pursue advanced opportunities in the STEM fields while still in high school. By taking additional STEM courses, students will be able to begin narrowing down their areas of interest for college and career before leaving high school. STEM Academy students will be given the opportunity to double up in their science courses yearly, and the curriculum for the program will allow students to understand the interconnections between the four broad areas of STEM – Science, Technology, Engineering, and Math. Students will understand what type of work is done in the STEM fields and how the content overlaps significantly.

How does the admissions process work?

Kell STEM Academy will have a competitive admissions process. Criteria that will be evaluated will include the following:

- Standardized test scores, with emphasis on Math and Science scores
- Middle school grades, with emphasis on 7th and 8th grade
- Curriculum taken in middle school, with favor given to students taking Algebra I or higher in math and Physical Science.

How are students exposed to STEM careers?

The Kell STEM Academy will work to develop a network of STEM professionals in order to host regular presentations wherein those STEM professionals can share their work experiences and opportunities in their fields.

Kell STEM Academy Staffing

The Kell STEM Academy has a STEM Academy Coordinator who oversees all the program’s needs. There is also a Kell STEM Academy Leadership Team to guide the program’s success.

Kell STEM Academy Application (<https://forms.office.com/r/6X9TK5Jn87>)

The application link will be available on the Kell website (www.cobbk12.org/kell) until March 7.

Kell STEM Academy Graduation

Upon successful completion of this rigorous program, students will receive recognition at the yearly honors night ceremony and an honor cord denoting their successful completion of the program for their graduation.

Kell STEM Academy Expectations

To remain in good standing and part of the program, students must successfully complete the STEM course curriculum. Additionally, students must meet STEM related extracurricular requirements each year to be recognized for STEM Program completion.

Curriculum Requirements	9 th Grade	10 th Grade	11 th Grade	12 th Grade
Science	H Biology H Chemistry	AP Environmental Sci	H Physics/AP Physics I AND	Adv Sci Internship or AP Research



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Pathway	Pathway Course 1	Pathway Course 2	Hon/AP Sci Elective	Pathway Course 4 (optional)
Math *Must complete calculus or AP Statistics	Scenario 1 H Algebra 1	H Geometry	H Advanced Algebra AND AP Precalculus	AP Calculus AB/BC or AP Statistics
	Scenario 2 H Geometry	H Advanced Algebra	AP Precalculus	AP Calculus AB/BC or AP Statistics
	Scenario 3 H Geometry AND H Advanced Algebra	AP Precalculus	AP Calculus AB/BC	GT Calculus or AP Statistics
	Scenario 4 H Geometry	H Advanced Algebra AND AP Precalculus	AP Calculus AB/BC	GT Calculus or AP Statistics
English	H 9 th Lit	H World Lit	AP Lang AND AP Seminar	4 th year H/AP Lit
Social Studies	H World Geography or AP Human Geo	H World History or AP World History	H US History or AP US History	H Econ/Gov or AP Econ/AP Gov
World Language	Language 1 or 2	Language 2 or 3	Language 3	Language 4 (optional)
Health/Personal Fitness *Required but can be taken any year if adjustment needed	Health/Pers Fitness			

Pathway Options	<i>Engineering</i>	<i>Computer Science</i>	<i>Healthcare Science</i>
Course 1	Foundations of Engineering & Technology	Intro to Software Technology	Intro to Healthcare Science
Course 2	Engineering Concepts	Computer Science Principals or AP Computer Science Principals	Essentials of Healthcare
Course 3	Engineering Applications	AP Computer Science Principles	Allied Health & Medicine
Course 4	Engineering Research & Design	AP Computer Science A or Game Desing: Animation and Simulation	

STEM Related Extracurricular Requirements

9 th Grade	10 th Grade	11 th Grade	12 th Grade
STEM Club	STEM Competition	STEM Competition or STEM related internship/work	AP Research or STEM related internship/work