



### Application Process

Students interested in attending the Wake STEM Early College High School must complete a multi-step application which opens in October and closes in December. The application process is re-quired in order for a student to be considered for selection the next school year. Students must be rising 9th or 10th graders and residents of Wake County to apply.



Please see our website for exact application dates and tour information.

# WAKE STEM

## EARLY COLLEGE HIGH SCHOOL

science, technology, engineering, and math

A WAKE STEM SCHOOL



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Cary, NC 27518

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preparing tomorrow's problem solvers





# Program Overview

## EARLY COLLEGE HIGH SCHOOL OFFERS VALUABLE OPPORTUNITIES

The Wake STEM Early College High School is a joint project between the Wake County Public School System and NC State University. STEM is an acronym that stands for the four content areas that this school will focus on: science, technology, engineering, and mathematics. Exploration of society's greatest STEM challenges will be a common instructional focus that will extend through various courses. Early College High School students will earn both a high school diploma and up to two years of college credit at NC State University at the conclusion of their five year program.

It is essential that students who come to our program are highly interested in one or more of the content areas of science, technology, engineering, and/or math, and have a strong desire to attend college. This will require students to be dedicated and focused since they will be both high school and college students.

### DISTINCTIVE FEATURES

- NC STATE UNIVERSITY PARTNERSHIP
- 5 YEAR PROGRAM WITH OPPORTUNITY TO EARN HIGH SCHOOL DIPLOMA AND UP TO TWO YEARS OF COLLEGE CREDIT
- SCIENCE, TECHNOLOGY, ENGINEERING, AND MATH INTEGRATED INTO CORE SUBJECTS
- SMALL SCHOOL DESIGN
- COLLEGE COURSES TAUGHT BY UNIVERSITY FACULTY
- EXPANDED OPPORTUNITIES FOR REAL-WORLD EXPERIENCES
- COLLEGE COURSES OFFERED AT NO COST TO STUDENT OR PARENT
- STUDENT COHORT HOLDING SIMILAR INTERESTS AND FOCUSED ON LEARNING

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### CAMPUS FACILITIES

Wake STEM Early College High School is located in Cary, North Carolina near Crossroads. Students complete high school course work at this site and will continue their college course work on NC State University's Campus.

### SCHOOL CALENDAR

Wake STEM Early College High School is aligned with the NC State University calendar. The school year begins during the second week in August and concludes near the Memorial Day holiday.

### TRANSPORTATION

Wake STEM ECHS utilizes the WCPSS Express Bus routes available to magnet students.

### CHILD NUTRITION SERVICES

Students are offered WCPSS lunch options each day. Reduced-price lunches are available for students who qualify. Additionally, students may choose to purchase lunch through vendors who serve NC State University when on the university campus.

### COLLEGE TUITION, BOOKS, AND FEES

North Carolina Early College students are provided free tuition, and books for college classes that are taken during the regular school year. They are not charged student fees.

The Wake STEM ECHS is a small school by design. Placing a high priority on personalization, this program allows for the development of productive relationships. These relationships create a highly supportive and challenging learning environment. Students who will be the first in their family to earn a college degree are strongly encouraged to apply.



## STEM EDUCATION AND GRAND CHALLENGES

The need to enhance STEM education is vital to the prosperity of our nation. Increased global connections and competition mean that it is important for U.S. citizens to remain leaders in STEM research and development.



Innovations in STEM fields will improve the quality of life for our citizens and drive our future economy. They also have implications for the world as a whole. Nothing less than the sustainability of our planet rests in the answers to many of the major questions and challenges that remain unsolved today in these fields.

Some of the grand challenges that for engineering Wake STEM Early College High School students will be engaged with are listed on the right.

STEM Grand Challenges adapted from National Academy of Engineering Grand Challenges



STEM Grand Challenges



Make Solar Energy Affordable



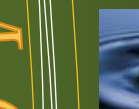
Energy From Fusion



Carbon Sequestration  
Clean Air



Manage Nitrogen Cycle



Access to Clean Water



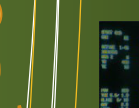
Restore and Improve  
Urban Infrastructure



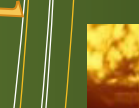
Advance Health  
Information Systems



Create Better Medicines



Understand How  
the Brain Works



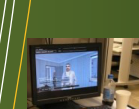
Prevent Nuclear Terror



Secure Cyberspace



Enhance Virtual Reality



Advance Personalized Learning



Develop the Tools of  
Scientific Discovery

