

# THE CENTER FOR SCIENCE, TECHNOLOGY, ENGINEERING & MATH

## Purpose of the CCHS STEM DIPLOMA

The Mission Statement of Cherokee Christian Schools reflects our desire to provide a “Christ-centered academically-excellent education” which will result in “Godly leadership.” In order to fulfill this mission, we are continually looking for ways we can better provide that academic excellence resulting in leadership in an ever-changing world. Cherokee Christian Schools must be ready to address new challenges and new cultural situations.

One significant change which has taken place over the past ten to twenty years is the importance of science, technology, and engineering (all of which are undergirded by math). If we are going to prepare our students to serve God in this world, we must provide them with a sound training in this area.

For this reason, Cherokee Christian High School has created a STEM (Science, Technology, Engineering, and Math) Diploma program. Students who choose this program (which is offered alongside our traditional college-preparatory diploma)

will engage in a rigorous four-year course of study which will prepare them thoroughly to pursue advanced degrees and careers in scientific and engineering fields. They will have the opportunity to learn from teachers who have been engaged in various fields of science, technology, and engineering.





## FAQs

### Why should a student enroll in this program?

Students who are interested in pursuing work in STEM areas will be more than adequately prepared for advanced studies through this program. The rigor of the program will lay the groundwork for similar scholarship in undergraduate and graduate-level degree programs. Students graduating from the STEM program will not only have an impressive course of studies for their transcripts and resumes, but will have the benefit of having studied under teachers who have real-world experience in these areas.

### What are the entrance requirements and procedure?

Students must apply for provisional acceptance in the STEM program in the spring of the eighth grade. Students must give evidence that they are prepared academically for the level of studies, and that they are committed to achieving excellence in their studies. Evidence will include:

- A written application
- Standardized test scores, which must show achievement at the 85th percentile or higher in math and science, and the 70th percentile or higher in English
- Recommendations from the student's current math and science teachers
- A personal interview with the heads of our math and science departments

### What are the requirements for remaining in the STEM program?

In the fourth quarter of the student's freshman year, he must apply for full acceptance into STEM. This application will consist of the following:

- A written application, including an essay giving specific examples of how his freshman classes have led him to continue to seek studies in STEM
- Recommendations from the student's current math and science teachers
- Recommendations from the student's current math, science, and english teachers

Students who pass this application will be accepted into the STEM program. Other students will be transferred to the standard college-preparatory diploma program.

In addition, students in the STEM program must maintain an overall weighted 3.0 GPA, and must maintain at least a B average in each of their math and science courses, based on the semester grades.

### Will the students get college credit for their work?

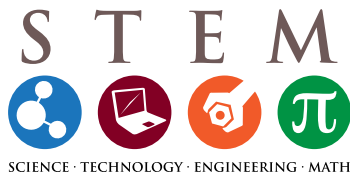
For the Advanced Placement (AP) courses, the granting of college credit is determined by the individual colleges to which the student applies, based on the student's score on the AP exam in the spring. In addition, some courses may be taught on a dual-credit basis in conjunction with a local college; those courses will receive credit from that college, which may be transferred to other colleges on the same basis as any college credit.

### May home-school students enroll for individual courses and receive a CCHS STEM diploma?

Because all the courses in our four-year STEM curriculum are designed to support each other, students must enroll in the full program for all four years to receive a STEM diploma.

### Will the STEM program help my student receive the Zell Miller Scholarship from the HOPE program?

The State of Georgia sets out the requirements for calculating grade point averages for HOPE and the Zell Miller Scholarship. Currently (February, 2011) they add 0.5 quality points to the HOPE GPA calculation for all AP courses, but not for any other courses (such as honors courses). All AP courses in the STEM program will thus receive additional weight for the HOPE program.



## CCHS STEM DIPLOMA

Typical Course Sequence (subject to change)

Subject	FRESHMAN	SOPHOMORE	JUNIOR	SENIOR
<b>Bible</b>	Old Testament	New Testament	Doctrine/Apologetics	Philosophy and Ethics (with emphasis on science and technology elements)
<b>Math</b> ( <i>Algebra 1 completed in Middle School</i> )	Geometry <i>and</i> Algebra 2	Pre-Calculus	AP Calculus AB	Mandatory Elective in Advanced Math (examples: AP Calculus BC, AP Statistics, Honors Linear Algebra, Honors Numerical Analysis)
<b>Science</b>	Chemistry	Biology	AP Physics C	Mandatory Elective in Science or Engineering (examples: Human Anatomy/Physiology, AP Physics C, AP Chemistry, Honors Aeronautical Engineering, Honors Biomedical Engineering)
<b>Engineering</b>	3D Modeling and Design (1 semester)	Honors Principles of Engineering I (Mechanical Systems)	Honors Principles of Engineering II (Digital Systems)	
<b>Technology</b>		Introduction to Programming (1 semester)		Elective (examples: MatLab, Python, Java, C++ Programming, Computer Science) (1 semester)
<b>Social Science</b>		World History (with emphasis on scientific and engineering developments)	U.S. History	Government/Economics
<b>Foreign Language</b>			First Year Language	Second Year Language
<b>English</b>	English 9	World Literature	American Literature or AP English Grammar/Comp	British Literature or AP English Literature/Comp
<b>Fine Arts</b>	Conceptual Drawing (1 semester)	Digital Design (1 semester)		Elective (example: Studio Art, Drama, Video Media) (1 semester)
<b>P.E. / Health</b>	PE/Health			
<b>TOTAL CREDITS</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>