

## FAQ for STEM School

**Q: Who can attend the STEM school?**

A: Any student on track to complete the 8<sup>th</sup> grade with residency in Hamilton County. This includes students in Hamilton County schools, private schools or home school programs. Admission is limited to a cohort of 75 students for the first year, adding a new cohort of 75 each year until the school reaches a maximum capacity of 300.

**Q: How do I apply?**

A: Applications are available on the Hamilton County Department of Education website: [www.hcde.org/stem](http://www.hcde.org/stem) or through the SE Tennessee STEM Initiative website: [www.SETennesseeSTEM.org/stemschool](http://www.SETennesseeSTEM.org/stemschool)

**Q: How will students be selected?**

A: We are anticipating demand for the school to far exceed the 75 available first-year cohort slots so a two part lottery system will be used. First, there are allocated slots across the county per each zone school. The allocations are done by the size of the existing student population. If there are more applicants per zone than slots, a mini-lottery for those zone slots will be conducted. If there are less zone slots than applicants for a particular zone, those applicants will be admitted and the unfilled slots will go into a second lottery for all students who did not get accepted through their zone lottery.

Here is an illustrative example only:

Zone School 1: 10 slots, 5 applicants: All 5 applicants accepted and 5 slots go to second lottery.

Zone School2: 10 slots, 13 applicants: Lottery held between all 13 applicants for the 10 slots. The three that are not selected go into second lottery.

If there are more spots than applicants in the second lottery, everyone will be admitted. If there are more applicants than spots, all the applicants will be entered into the second lottery.

**Q: If my student doesn't get in through the lottery or the waitlist, can they still benefit from the curriculum at the school?**

A: Yes! There is a support network HUB that is also being introduced and the HUB will help ensure that the curriculum and teaching methods are disseminated across the Region.

**Q: Do I have to get my student to and from school - won't there be transportation?**

A: Transportation will be planned after the school lottery process so that the County knows where the students who will attend the school live. Since the transportation details are still being finalized, please continue to check the site [www.HCDE.org](http://www.HCDE.org) and navigate to the SCHOOLS tab, then STEM SCHOOL. As decisions about transportation are made, they will be posted there and communicated directly to the students who will attend the school on opening day.

**Q: What if my student isn't happy with the school; can they transfer back to their zoned school?**

A: Mid-year transfers will not be allowed but after completing the first year, if it truly isn't a good fit, the student can transfer back to their zoned school.

**Q: Where is the STEM school located?**

A: On the beautiful campus of Chattanooga State Community College, 4325 Amnicola Highway, Chattanooga, TN. Through a collaborative effort with Hamilton County Department of Education and Chattanooga State, students attending this school will enjoy over 17,000 square foot of space in an open concept design. The school is on the Tennessee River affording unique opportunities for the future establishment of outdoor classrooms and lab work.

**Q: A high school on a college campus, is this safe?**

A: YES! Students who attend the STEM school will have limited interaction with the Chattanooga State students while enjoying the benefits of access to the libraries, labs and faculty. Chattanooga State has already successfully demonstrated their ability to provide a safe learning environment for their own students as well as Hamilton County students attending Middle-College, also located on the Chattanooga State campus.

**Q: I've heard that the school will not have "traditional" hours. Is this true?**

A: In short, YES! Research has proven that the adolescent brain is most active and ready to learn by about 10am. What parent can't relate to this when trying to rouse a teenager on an early weekday morning! This school will adapt practices wherever possible to ensure that the student is at the center of the education model and this includes changing school times to better reflect when students are ready to learn.

**Q: Does this mean that the school day will end later too?**

A: Yes. The length of a school day is set by Tennessee State law. If the school day starts at 10:00am, it would end around 5:00pm. By the time the students are juniors and seniors, their formal day at school could end earlier if they've already accrued the needed credits and can begin an internship in the workforce. For the immediate future, with an incoming class of freshman, the day will closely mirror the end of the workday times in order for parents to pick up their children after work.

**Q: My child is interested in athletics, band and other extracurricular activities. Will students at the STEM school have these types of opportunities?**

A: Not initially. The hours of this school extend well beyond that of the traditional zoned schools so it would not be possible for a student to attend an athletic or extracurricular activity back at their zone school that starts while the STEM school is still in session. As the STEM school program matures, new opportunities will develop as led by student interest.

**Q: Will my student be able to buy a lunch at school or do they have to bring a sack-lunch every day?**

A: Hamilton County Department of Education Nutrition program will be available to all students. Free and reduced prices lunches based on individual circumstances are available at the STEM school as at any other HCDE school.

**Q: Will parents be required to volunteer?**

A: No. Parents are not required to volunteer.

**Q: What is the curriculum for the STEM school? Is it really going to be different than what any other school does?**

A: When the grant was written, the high level curriculum plan was submitted. Now that the grant has been awarded, work has started to refine the vision and create the specific student experience. Educators are working to develop the curriculum and an advisory board of Business and Industry professionals, Parents and Community Leaders will help plan how the curriculum will be delivered, making this a unique approach to ensure the student experiences is as innovative as the school itself. While there are still some unknowns, what is known is that the curriculum will align with State of Tennessee and Common Core Standards. It will provide authentic and relevant learning experiences as a part of everyday learning. The keystone of the platform school is an integrated curricular model with a central focus on Science, Technology, Engineering, the Arts, Mathematics, & Medicine (STEAM<sup>2</sup>). Partnerships with postsecondary institutions and regional businesses will provide opportunities for non-traditional 11<sup>th</sup> & 12<sup>th</sup> grade years in which internships and apprenticeships will teach students through modern-day application of the academic concepts.

The curriculum at the STEM school will be rooted in a project-based learning philosophy. Project-based learning is a dynamic approach to teaching in which students explore real-world problems and challenges, simultaneously developing cross-curriculum skills while working in small collaborative groups. Because project-based education yields active and engaged learning, it inspires students to obtain a deeper knowledge of the subjects they are studying. Strong related arts programs and sophisticated technological resources will foster creativity and advance technical capabilities among the students. The teaching model will guide students through a unique, cutting-edge learning experience and challenge them to shift their thinking to the practical applications of academic material. Distance learning technology and a synergistic partnership with the Southeast Tennessee STEM Innovation Hub will empower the school to disseminate its educational strategies throughout the entire region.

Below is a “vision” for you to begin to imagine what the learning experience will be like. This vision will become a reality with the continued support of K-12, Higher Education Institutions, Business & Industry and the Community who are demanding change. Explore the STEM school and be a part of this exciting time in our Region’s development.

### **A Day in the Life at STEM High School**

Emily arrives at the STEM High School and swipes her electronic key card to get into the STEM Accelerator Lounge (SAL). This LEED-certified area is powered by the solar panels installed on the roof and cooled by the geothermal system installed by last year’s graduates as part of their STEMservice project.

In SAL, several students are discussing their applied robotics project with their instructor over a cappuccino. The instructor, an engineer from Volkswagen, is a visiting professor this term and is helping to prepare his students to compete in the national Westinghouse Science Competition. Many students are gathered around a big screen TV watching two Gaming and Interactive Multimedia (GIMME) students beta test the video game they have designed.

In the library, Ben is intensely focused on his iPad screen. Although he is sitting quietly, comfortably in a nook in the corner by himself, he is working with his team scattered across the campus preparing for a presentation they will make in their network management seminar as part of the IT pathway. He is part of an interdisciplinary, interscholastic team from Howard, SMMHS, and LVHS.

In the advising and administrative suite down the hall, a HS and college advisor are meeting with Eric, a sophomore, and his parents to discuss his comprehensive, long-term educational plan. He spent the summer exploring several area technology-based companies as part of the STEMshadow program and has expressed an interest in learning more about hydroelectric power and the regional implementation of the electric car charging stations. The advising team will be developing a tailor-made course list for Eric’s junior year and will be contacting the TVA, a member of the STEM Hub, to set up an internship the following summer. In this particular meeting, there is someone from the TTU advising office to counsel Eric about the dual admissions possibility and how he can move seamlessly from HCDE to ChSCC to TTU and earn his B.S. in engineering. Because of his internship with TVA, he has an inside track to a successful, challenging career.

Mark is a graduate student in the UTeachChattanooga program at UTC and is excited to be teaching a section of calculus at STEM HS to a group of students who are on campus for the afternoon. He is being supervised by the STEM HS math department chair as they collaborate on best practices in math pedagogy. These students on the campus are joined by 20 other students from both Grundy County HS and the SBVC satellite campus who are linked in through the DVC network utilizing a state-of-the-art distance learning lab. After a super experience with these students, Mark expresses interest in applying for a math teaching position with HCDE.

After her morning classes in Microbiology and A&P at the STEM HS main campus, Allison catches the bus to her home HS for her afternoon classes, band, and softball practice. During the off-season, she works part-time at McKamey Animal hospital preparing to go to vet school at UTK after completing her bachelor’s degree in biology.

Today, Susan will not be traveling directly to her HS campus to teach her regular chemistry class. For the next year during her first block, she will be team teaching the CHEM1110 lecture/lab with a member of the Wacker Institute on the STEM HS campus. This is part of her practicum in partial completion of her Master's in inorganic chemistry. After she earns this advanced degree, she will be able to teach college chemistry as part of the STEM HS satellite program at her home HS in Hamilton County.

As the HCDE superintendent tours the school, he observes the following STEM teaching & learning activities:

- A group of students boarding the shuttle to travel to the UTC Computational Engineering Lab
- A class of students in the electronics lab working at the bench as part of a program to provide refurbished laptops for disadvantaged students in the county
- Environmental Science students down by the river collecting specimens for their research on toxicity and algae
- A local retired Air Force pilot is giving a lecture on aerodynamics before they break into teams to research, design, and test their own scale aircraft
- A group of HCDE HS faculty has just adjourned their professional development seminar on *'Teaching Your Students to Think Like Scientists'*
- A class of students sitting in a 3-D CDE distance learning lab, discussing a chemical engineering case study with a chemistry teacher at Signal Mountain, an engineer at ORNL, and another chemistry class in Germany... all groups are visible/audible to the others through state-of-the-art videoconferencing technology.