

Western School of Technology & Environmental Science

Health Science Technology (HST)

A Baltimore County Middle School Guidance
Counselor's Handbook

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Banner Credit: http://www.edline.net/pages/Western_School_of_Technology

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What is the Purpose of this Handbook?

This handbook serves as a guide for Baltimore County middle school guidance counselors as you all advise students on the Western School of Technology (Western Tech)'s Health Science Technology (HST) program. The content will help you, your students, and their parents/guardians gain a better understanding of HST. You will be equipped to support students in their decision about whether or not HST is the right fit for them.

The various sections incorporate information solely for you as the counselor and fact sheets that you may give to students to take home. Throughout the handbook, you will see an asterisk (*) next to the section title if that section has an accompanying student handout in the appendix.

Lastly, use this handbook to support your classroom presentations and one-on-one meetings with students or parents/guardians. Also, you will find a Prezi presentation to support your discussions at the following link:

http://prezi.com/49_rc-hgvd5z/western-tech-health-science-technology-hst-prezi-by-brittnee-alford/

If you need additional information about the HST program you may contact:

Bethany A. Birago, RN, MSN, NRP
Health Science Teacher / Junior Year Internship Coordinator
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(410)-591-6058
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What Programs Does Western Tech Offer?

Western Tech, located in Catonsville, MD, offers students 11 different magnet programs. These programs are designed to prepare students for highly specialized careers. Western Tech's magnet programs cover a wide range of disciplines:

- Automotive Service Technology
- Business Management & Finance
- Cosmetology
- Culinary Arts & Restaurant Management
- Environmental Science
- Environmental Technology
- Graphic/Print Communications Technology
- Health Science Technology
- Information Technology-Networking Pathway
- Information Technology-Programming Pathway
- Mechanical Construction/Plumbing

Students also have access to 11 athletic teams and 19 clubs/organizations. Some of the sports and organizations include the following:

- | | |
|--------------------------------|---|
| • Football | • Debate Team |
| • Cheerleading | • Robotics Club |
| • Boys' Lacrosse | • National Honor Society |
| • Girls' Softball | • Future Business Leaders of America (FBLA) |
| • Boys' & Girls' Soccer | • Future Health Professionals Organization |
| • Boys' & Girls' Basketball | |
| • Boys' & Girls' Track & Field | |

Visit http://www.edline.net/pages/Western_School_of_Technology for a complete list of extra-curricular activities.

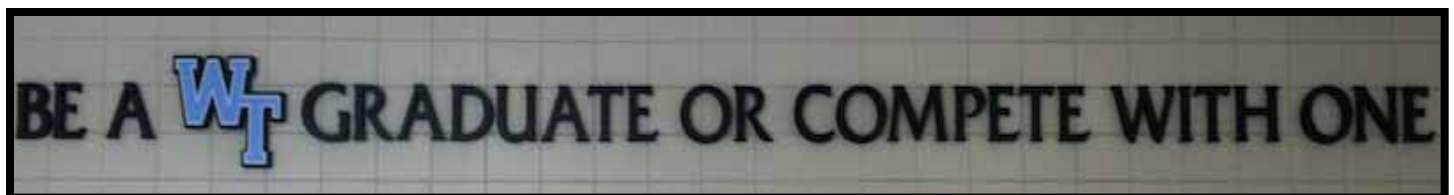


Photo credit: Liz Angeli

What is HST?

HST is one of the four Allied Health magnet high school programs in Baltimore County. The program targets students who have two specific goals: to work in healthcare and to pursue a four-year college degree. This college-bound focus is the key feature that sets HST apart.

HST is currently Western Tech's biggest magnet program with a total enrollment of 175-180 students; the student-teacher ratio ranges from about 14-24 students to 1 teacher. Since HST does not focus solely on Certified Nursing Assistant (CNA) or Geriatric Nursing Assistant (GNA) certification, the program is not only designed for nursing students. Altogether, HST prepares students for several health career areas:

- Nursing
- Emergency Care
- Rehabilitation
- Pharmacy
- Dentistry
- Psychology
- Surgery
- Physician Assistance



"You will gain knowledge and exposure to make informed career decisions in the multidimensional field of Allied Health."

What Makes HST Stand Out?*

1. Internships / Real-world Experience

In their junior and senior year, HST students receive hands-on training in healthcare settings. HST partners with the University of Maryland Medical Center, so students are authorized to intern and observe several hospital units. Students perform rotations in the pharmacy, the Neonatal Intensive Care Unit (NICU), radiology, geriatrics, physical therapy, oncology, and many more.

2. College Preparatory Curriculum / AP Courses

HST students can also choose to take AP courses at Western Tech instead of doing internships off-site. Seniors may take up to five or six AP courses, such as AP English, AP US History, or AP Calculus to earn college credit.

3. Co-enrollment at Community College of Baltimore County (CCBC)-Catonsville

Lastly, HST students have the option to enroll in introductory college courses at CCBC while completing the HST program requirements. From the time students turn 16 and until they graduate, they can receive half-priced tuition on CCBC courses. Most students take courses, such as ENG 101 and Speech. Students take classes at the Catonsville campus, which is close to Western Tech.

(See pp. 10-11 for more details on HST internships, AP courses, and CCBC co-enrollment)

*See the Appendix for a HST key features handout.



Photos credit: Bethany Birago

What Skills Do Students Need for HST?*

To get accepted into HST, students must demonstrate competency in these key areas:

Hard Skills: Math & Science

Students must be able to perform all basic math skills (addition, subtraction, multiplication, and division) by hand. Also, students must be familiar with science, including the metric units of measure, the scientific method, and medical terminology. To learn key terms and practice answering questions, students can download an HST-specific assessment packet from the Baltimore County magnet school website with this link: <http://www.bcps.org/offices/omp/high/apply.asp> (See “Download assessment guidelines for each program to which you have applied.”).

Soft Skills: Strong Personal Attributes

Interested students also need to exhibit strong organizational skills, teamwork skills, good character, high productivity, and have a high attendance rate. These soft skills come into play when students do internships, take AP courses, or enroll at CCBC. They are better prepared to multi-task on school work, job duties, and other responsibilities.

*See the Appendix for a HST key student skills handout.



So, what are students saying about the skills they've developed in HST?

“HST really prepares you for the future.”

“I’ve grown a lot.”

“You learn to manage your time better.”

How Do Students Apply for HST?*

Students who gain admission into HST follow these five steps:

1. Start Early

Interested students should begin the HST application process as early as 6th or 7th grade. They have to make their decision in early 8th grade. Students who plan their application process early can keep better track of their qualifying GPA and the prerequisite classes they need. The admissions process is based on a 100 point system (10 points for attendance, 10 points for math enrollment, 20 points for GPA and 60 points for test score). Applicants must earn 80 points to qualify for HST.

2. Maintain High GPA

Students need to maintain a high cumulative GPA to be accepted into HST. The admissions team will look at all grades from 7th grade and the first quarter grades from 8th grade. Altogether, students must have a cumulative 80 or above.

3. Score High on HST Entry Test

Applicants will take a HST-specific exam, which includes 7th and 8th grade vocabulary, general math, and healthcare-specific math (reading medical instruments). The math assessment is crucial because that portion will help HST determine the level of math the student meets. Students earn up to 20 points on the math section. Lastly, students answer practical questions on working in healthcare.

4. Attend Western Tech Open House

Students and parents/guardians who attend Western Tech's open house receive a detailed student-application packet. These materials include all of the key information and important deadlines for applications. The deadline is usually in mid to late November of the year prior to students' entry into Western Tech.

5. Stay Updated on Deadlines

To stay updated on deadlines, students can check the Baltimore County Public School, Office of Magnet Program website: www.bcps.org/OFFICES/omp/high/apply.asp

*See the Appendix for an HST application process student handout.

What is the HST Curriculum?*

HST students take English, math, and other general course requirements with classmates in other Western Tech programs. Here is a brief overview of the HST-focused curriculum:

9th grade: learn fundamentals in anatomy and physiology

10th grade: move on to health science; review vital signs; practice bed-making and using wheelchairs; learn CPR, first aid, and medical terminology

11th grade: train in pharmacy, inpatient/outpatient treatment, medical procedures, and equipment operation; visit specialized hospital units: radiation, geriatrics, Neonatal Intensive Care Unit (NICU), pediatrics; perform small hospital tasks: stock blanket bins, clean equipment, and clear patient computer records

12th grade: complete specialized internship, AP classes, or CCBC co-enrollment; create final portfolio

All HST students are encouraged to take at least one AP class before they graduate. This goal ensures that all students will be exposed to college-preparatory curriculum before they enter college.

*See the Appendix for a HST curriculum student handout.



Photos credit: Bethany Birago

What are the Internship Details?

Choosing A Senior Internship

After HST students complete four to five hospital rotations for their junior year internship, they decide which specialized area they want to pursue for their senior year independent internship. Students choose to pursue a variety of areas: physical therapy, pediatrics, oncology, pharmacy, etc. The internship can be either paid or unpaid.

Internship Requirements & Duties

Once students have an assigned internship unit, they spend **10 hours a week minimum** at their site. Students work under the direction of a full-time hospital employee. They spend time observing their mentor, asking questions, and performing key tasks for that unit. For example, a physical therapy student intern will help transport patients, assist patients with therapy exercises, and clean patient rooms.

Transportation

Students must provide their own transportation to and from their internships. They need a reliable vehicle, so they can report to their sites on time and meet their required weekly hours.

What are students saying about their internship experience?



Photo credit: Bethany Birago

"For the internship, you go to an actual hospital. You interact with real patients and learn how to be a people's person."

"The internship helps you decide what you want to do in health."

"I always knew I wanted to be in the medical field, and HST's internship experience helps you build bridges."

What about the AP / CCBC Courses?

Choosing Senior AP Courses

Most students choose the senior internship option, but some HST students prefer to take AP courses. **These students can graduate from Western Tech with up to 33 college credits.** They enter college ahead of many of their peers because they are used to completing college coursework and know how to manage studying time.

Students who choose the AP courses also have to spend **a minimum of 10 hours a week on coursework.** Some students take up to six AP courses in their senior year because they know that the work will help them when they go to college.

Choosing CCBC Co-enrollment

Fewer students choose to enroll at CCBC-Catonsville, and the enrollment capacity is limited. Similar to AP courses, CCBC coursework will give students the chance to get a step ahead of their peers. They enter college ready to move past some of the 100-level introductory courses their peers will still need to fulfill. **All students are offered the opportunity to qualify for as many as three (3) credits in First Aid and CPR through HST's partnership with CCBC.**



Photos credit: Bethany Birago

What are Other Career-prep Features?

HST Student Portfolio

HST seniors create a portfolio to showcase everything they have accomplished in the program. The portfolio includes a resume, documentation of internships and other real-world experience, course projects, and any other materials that prospective employers will look for. The internship coordinator approves each student's portfolio and requires students to revise until the content fully represents them well.

Career Fair

Once students have a final portfolio, they attend a career fair with several representatives from local businesses and organizations. Students gain first-hand experience in how to properly introduce themselves to employers and explain their qualifications. Career professionals also conduct mock interviews with students so they learn how to answer questions effectively. Every student tries to meet a goal of at least six mock interviews before the fair ends.



Photos credit: Bethany Birago

How Can I Get More Information?

You can get more information about Western Tech and HST by consulting the following resources:

Bethany A. Birago, RN, MSN, NRP
Health Science Teacher / Junior Year Internship Coordinator
Western School of Technology & Environmental Science
(410)-591-6058
bbirago@bcps.org

Western Tech's Website:
www.edline.net/pages/Western_School_of_Technology

HST Home Page:
www.edline.net/pages/Western_School_of_Technology/Magnet_Programs/Health_Science_Technology

**Baltimore County Public School's Website
Office of Magnet Programs:**
www.bcps.org/OFFICES/omp/high/apply.asp

Appendix: Student Handouts

This appendix includes four handouts that you can give to middle school students who want to learn more about HST. The handouts were created so that you could easily photocopy them as they stand. Students can share these handouts with their parents or guardians if they have any questions about HST.

Please feel free to use these handouts for any additional purposes that you have when explaining HST to prospective students.

See the HST key features, HST key student skills, HST application process, and HST curriculum student handouts on pages 15-18.

Western School of Technology & Environmental Science - Health Science Technology Key Features

Are you a middle school student who wants to learn more about the **Health Science Technology (HST)** program at the Western School of Technology & Environmental Science? **Here are three key HST features.**

1. Internships / Real-world Experience

During your junior and senior year in HST, you receive hands-on training in healthcare settings. HST partners with the University of Maryland Medical Center, so you will be authorized to intern and observe several hospital units. You perform rotations in the pharmacy, the Neonatal Intensive Care Unit (NICU), radiology, geriatrics, physical therapy, oncology, and many more units.

2. College Preparatory Curriculum / AP Courses

In your senior year, you can also choose to take AP courses at Western Tech instead of doing an internship off-site. Seniors may take up to five or six AP courses, such as AP English, AP US History, AP World History, AP Economics, AP Statistics, or AP Calculus to earn college credit.

3. Co-enrollment at Community College of Baltimore County (CCBC)-Catonsville

Lastly, you have the option to enroll in introductory college courses at CCBC while completing the HST program requirements. From the time you turn 16 and until you graduate, you can receive half-priced tuition on CCBC courses. Most students take courses, such as ENG 101 and Speech. You take classes at the Catonsville campus, which is close to Western Tech.

See HST's home page for more information about these key features:

www.edline.net/pages/Western_School_of_Technology/Magnet_Programs/Health_Science_Technology



Western School of Technology & Environmental Science - Health Science Technology Key Student Skills

Are you a middle school student who wants to become a student in the **Health Science Technology (HST)** program at the Western School of Technology & Environmental Science? **Here are the key skills you need to qualify for HST.**

Math & Science

- 1. Perform all basic math skills** (addition, subtraction, multiplication, and division) **without a calculator.**
- 2. Understand science**, including the metric units of measure, the scientific method, and chemical properties of substances.
- 3. Know key medical terms and vocabulary**
- 4. Read medical instruments** (for blood pressure, temperature, etc.)

You can get help with learning key terms and practicing questions by downloading an HST-specific assessment packet from the Baltimore County magnet school website with this link: <http://www.bcps.org/offices/omp/high/apply.asp> (See “Download assessment guidelines for each program to which you have applied.”).

Strong Personal Attributes

Along with valuing students who have strong math and science skills, HST targets students who have strong personal attributes. You must exhibit **strong organizational skills, teamwork skills, good character, high productivity, and have a high attendance rate.** These attributes will help you meet the high expectations that HST sets for students who want to be leaders in healthcare.

Start practicing these skills now so you will be confident when you apply to HST and take the entry test.



Western School of Technology & Environmental Science - Health Science Technology Application Process

Are you a middle school student who is interested in applying to the **Health Science Technology (HST)** program at the Western School of Technology & Environmental Science? **Follow these five steps to apply to HST.**

1. Start Early

You should begin the HST application process as early as 6th or 7th grade. You have to make your decision in early 8th grade. When you plan your application process early, you can keep better track of your qualifying GPA and the prerequisite classes you need to take. The admissions process is based on a 100 point system (10 points for school attendance, 10 points for math enrollment, 20 points for your GPA, and 60 points for your test score). You must earn at least 80 points to qualify for HST.

2. Maintain High GPA

You need to maintain a high cumulative GPA to be accepted into HST. The admissions team will look at all of your grades from 7th grade and your first quarter grades from 8th grade. Altogether, you must have a cumulative 80 or above to get into HST.

3. Score High on HST Entry Test

You will take a HST-specific exam, which includes 7th and 8th grade vocabulary, general math, and healthcare-specific math (reading medical instruments). The math assessment is crucial because that portion will help HST determine the level of math you meet. You earn up to 20 points on the math section. Lastly, you will answer practical questions about working in healthcare.

4. Attend Western Tech Open House

When you and your parent(s) or guardian(s) attend Western Tech's open house, you will receive a detailed student-application packet. These materials include all of the key information and important deadlines for applications. The deadline is usually in mid to late November of the year prior to the date you would begin HST.

5. Stay Updated on Deadlines

To stay updated on deadlines, you can check the Baltimore County Public School, Office of Magnet Program website: www.bcps.org/OFFICES/omp/high/apply.asp



Western School of Technology & Environmental Science - Health Science Technology Curriculum

Are you a middle school student who wants to learn about healthcare in the **Health Science Technology (HST)** program at the Western School of Technology & Environmental Science?

HST's curriculum is geared toward students who want to pursue both a college degree and a career in healthcare. HST sets itself apart from other programs by focusing on preparing you for college with internships, AP classes, and co-enrollment at the Community College of Baltimore County (CCBC) in Catonsville. **See a brief overview of what you will learn in HST below.**

9th grade: learn fundamentals in anatomy and physiology

10th grade: move on to health science; review vital signs; practice bed-making and using wheelchairs; learn CPR, first aid, and medical terminology

11th grade: train in pharmacy, inpatient/outpatient treatment, medical procedures, and equipment operation; visit specialized hospital units: radiation, geriatrics, Neonatal Intensive Care Unit (NICU), pediatrics, etc.; perform small hospital tasks: stock blanket bins and clean equipment

12th grade: complete senior capstone: specialized internship, AP classes, or CCBC co-enrollment; create final portfolio

As an HST student, **you will be encouraged to take at least one AP class** before you graduate. This goal ensures that you will be exposed to college-preparatory curriculum before you enter college. You can even earn up to 33 college credits with AP courses. Co-enrolling at CCBC will also allow you to earn college credit while you are still a senior at HST. The specialized internship will give you hands-on experience in healthcare and will help you decide on the best health professions career for your goals.

See HST's home page for more information about curriculum:

www.edline.net/pages/Western_School_of_Technology/Magnet_Programs/Health_Science_Technology

