Profile of the Science & Technology Program

Established 1976

PRINCE GEORGE’S COUNTY PUBLIC SCHOOL SYSTEM

Charles Herbert Flowers High School
10001 Ardmore Ardwick Road
Springdale, Maryland 20774
301-636-8015

CEEB/ACT Code 210.980
2008-2009
A. Tom Scercy
Science and Technology Program Coordinator

Program History
The Science and Technology Program (STP), established in 1976, is offered at three centers in Prince George’s County: Eleanor Roosevelt High School, serving the northern area, Charles H. Flowers High School serving the central area, and Oxon Hill High School, serving the southern area. Each school is a four-year comprehensive high school, as well as a Science and Technology Center. Each STP is an active member of the National Consortium of Specialized Secondary Schools of Mathematics, Science and Technology (NCSSSMST).

Program History at the Charles Herbert Flowers High School Center
Prince George’s County Public Schools, Maryland is the 17th largest school system in the nation. Charles Herbert Flowers High School is the newest high school in Prince George’s County. The Science and Technology Program is a 600 - student academic magnet component of the high school. The STP student population is 94% African American and 2% each Asian, White and Hispanic. 60% of this population is female. The class of 2004 was the first Science and Technology Program class to graduate from the Charles Herbert Flowers High School Center.

Admission Policy
Admission to the Science and Technology Program is highly competitive; it represents the top 5% of students from Prince George’s County Public Schools. Annually between 1,800 and 2,200 students undergo competitive testing for 500-525 seats. Ninth grade students who’s G.P.A. and standardized test scores rank among the top 225 in the northern part of the county comprise each new freshman class at Eleanor Roosevelt. Ninth grade students whose G.P.A. and standardized test scores rank among the top 150 in the southern part of the county comprise each new freshman class at Oxon Hill, and those that rank in the top 150 in the central area comprise the new freshmen class of Charles Flowers. Tenth grade students are admitted on a space available basis and must compete for a few openings per year. In all instances, grades in major subjects and scores on the standardized admissions test are the only criteria used to determine admission.

Pre-college Program
The Science and Technology Program is a highly structured four-year academic program. Of twenty-eight possible credits, a student is required to obtain a minimum of twelve and one-half credits in specific mathematics, pre-engineering technology, science, and research courses. In grades nine and ten, the program consists of common experience courses for all students. In grades eleven and twelve, each student must choose course work from one of four focus areas. Students are enrolled in a full schedule of seven classes per day during the entire four-year program. External experiences are possible and encouraged, but must be a direct extension of, or enrichment of The Science and Technology Program.

Research Oriented
All students conduct annual science/engineering projects. Seniors complete a research project, similar to a master’s thesis. Over half of senior students conduct their research at prestigious research facilities in the Washington, D.C. area, such as U.S. Department of Agriculture, Food and Drug Administration, The National Institute of Health, University of Maryland, The Catholic University of America, and the Naval Research Laboratory.

College Placement
100% of the STP at Charles Herbert Flowers Center 2004 graduates were accepted into over 70 different colleges / universities. These include Historically Black colleges (HBC) and Level 1 and 2 traditional state and private institutions. The average SAT score for the class of 2004 was 1140.

Please note that transcript courses designated TECH, T, or S/T are the equivalent of honors or HONORS classes and, in fact, exceed the requirements of typical honors classes.
Science and Technology

School of Study: Science and Technology Center

Academy: Science and Technology Program

Academy Description: The Science and Technology Program is a four-year high school course of study, which provides broad pre-college academic experiences with content and application focused on science, mathematics, engineering, and computer science. Admission is based on competitive entrance requirements.

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<th>Grade 9</th>
<th>Grade 10</th>
<th>Grade 11</th>
<th>Grade 12</th>
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<tr>
<td>English 9 HONORS</td>
<td>English 10 HONORS</td>
<td>English 11 HONORS/AP Lang</td>
<td>AP English /Pacesetters</td>
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<td>Mathematics</td>
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<td>Biology ST</td>
<td>Chemistry ST</td>
<td>Physics ST</td>
<td>Research Practicum</td>
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<td>Local, State, and National Government HONORS</td>
<td>World History HONORS</td>
<td>US History HONORS/AP</td>
<td>Elective / Internship</td>
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<td>Foundations of Engineering 1</td>
<td>Foundations of Engineering 2</td>
<td>Elective</td>
<td>Elective / Internship</td>
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<td>Physical Education/Health</td>
<td>Advanced Science and Technology Elective</td>
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1. If conflicts occur with foreign language, music, or ROTC Physical Education/Health can be deferred with approval of Program Coordinator.

2. The Science and Technology Program require three Advanced Science and Technology Credits for program completion. These must be taken during grades 10-12.

3. Off-Campus internship opportunities are appropriate

Advanced Science and Technology Electives include AP Biology, AP Chemistry, AP Physics, Microbiology/Physiology, Bio-Organic Chemistry, Engineering Systems Courses in Energy, Electronics, Production, and Structures, Architectural Drafting, Engineering Drafting (graphics), Intro-Computer Science, AP Computer Science, AP Calculus, AP Statistics, and select topics in science and engineering.

Work Component Description: Work-based learning opportunities include internships working with scientists/engineers associated with student Research Practicum projects.

Related Careers: Biochemist, Biologist, Chemist, Physicist, Professor, Teacher, Administrator, Child Psychologist, Nurse, Engineer, Occupational Therapist, Pharmacist, Physical Therapist, Physician, Psychiatrist, Radiologist, Speech Pathologist, Veterinarian

College Majors: Physical Sciences, Biological Sciences, Engineering, Computer Science, and related application fields such as law, business, education.

Suggested Extra-Curricular Activities: In addition to the school based science, math, and engineering activities, the following are among the opportunities to the students: Science and Engineering Fair, NCSSSMST Student Activities, Destination Imagination, FIRST, Maryland Science and Humanities Symposium.

Sites: Charles Herbert Flowers High School, Eleanor Roosevelt High School and Oxon Hill High School