



MONTGOMERY COUNTY PUBLIC SCHOOLS

Science, Mathematics, Computer Science Magnet Program

MONTGOMERY BLAIR HIGH SCHOOL
51 University Boulevard East • Silver Spring, Maryland 20901
Renay Johnson, *Principal* 301-649-2800



2016-2017 School Year

To College Admissions Officers:

The student whose application is enclosed is participating in the **Science, Mathematics, Computer Science Magnet Program** for highly able students at **Montgomery Blair High School**. Each year after testing and careful screening of over 500 students from sixteen of the twenty five high schools in Montgomery County, just 100 students are accepted for admission into the ninth grade. Our sister program at Poolesville High School accepts 50 students from the remaining nine high schools in the county.

The vision of the committee of scientists, university professors, community members and educators who designed the Blair Magnet Program was to provide an educational environment for students who could go beyond the curriculum of a traditional high school. The courses are interdisciplinary in design with more breadth and depth than typically found in honors level courses. Mathematics and technology are interwoven into each course. Fundamental courses are completed in the first two years including all four basic sciences (Physics, Chemistry, Earth Science, Biology), two years of computer science, mathematics through calculus, and two years of engineering. Research techniques are woven throughout our entire curriculum. Although we realize that not all of our students will become scientists or mathematicians, we believe that all students, no matter what their eventual goals, need a strong background in these areas.

In the final two years of high school, students can choose from a wide range of offerings including Advanced Placement (AP) courses and over twenty additional elective classes not traditionally found in other high schools. The elective classes are designed to be narrower in scope than an AP course and extend deeper within the content area. For example, instead of taking an AP Chemistry course, students in our program have the option of taking Physical Chemistry, Analytical Chemistry, Thermodynamics, Biological Chemistry, Materials Science and Organic Chemistry. The program also has the flexibility to revise curricula with respect to student and community needs, technological advances and current research. For example, students enrolled in Guided Research A are studying 3-D Computer Graphics. Please see the Blair Magnet Profile for a complete listing of courses.

In addition to an interdisciplinary approach to learning, the program is designed so that students participate in constructing their own knowledge base, develop a repertoire of problem solving skills and have the opportunity to pursue both independent and collaborative research projects. Research options include working with an experienced professional research mentor at a local government research institution, university, or private corporation.

The success of our students is apparent in the accomplishments of each graduating class. Although competition and preparation for tests are not part of the curriculum, the enclosed materials will show that this class has excelled by all testing measures. In addition, the students

have distinguished themselves in many state, national, and international competitions. Students from Blair have been on the US and International Biology, Computer Science, Mathematical, Physics and Chemistry Olympiad Teams. During the last five school years, students in our program have earned the following recognition:

- 168 National Merit Semifinalists
- 44 Intel Science Talent Search Semifinalists, including 8 Finalists
- 34 Regional Semifinalists and 1 Regional Finalist in the Siemens Competition
- 2 US Presidential Scholars, 6 Semifinalists
- First Place winner, National Science Bowl, 2016
- First Place winner for the University of Maryland Mathematics Competition in 2011, 2012, 2013 and 2015.
- 1 Gold and 3 Silver Medalists at the International Physics Olympiad, 2011-2015.

Like eighty other high schools specializing in math and science across the country, students in our program are actively involved in the National Consortium of Secondary STEM Schools (NCSSSS). They participate in annual conventions and in ongoing student-directed research and investigations. The Blair Magnet Program is a founding member of the NCSSSS, which is dedicated to providing innovative and rigorous college level curricula for high achieving students.

The mission of the Blair Magnet Program is to provide an environment in which each person's education is maximized. When reviewing this student's individual record, please consider the nature of the program and the demands it has placed on the candidate. The magnet program is designed to challenge and stretch the minds of some of the brightest and best students in the country. Grade point average should be considered in light of the student's willingness to accept this challenge and to take a risk in leaving a traditional high school setting to enter such a program.

Sincerely,

A handwritten signature in black ink, appearing to read "Peter Ostrander". The signature is fluid and cursive, with the first name "Peter" and last name "Ostrander" clearly distinguishable.

Peter Ostrander
Blair Magnet Program Coordinator