

CHARLES HERBERT FLOWERS HIGH SCHOOL
MATHEMATICS DEPARTMENT

MISSION

The mission of the mathematics department is to provide a mathematical sequence of coursework for all students, which is consistent with the mission of CHFHS, which ensures all students will learn mathematics, as measured by standardized tests such as AP, SAT, MSA, and HSA, as well as by authentic assessments created within the department and by individual teachers.

BELIEFS

1. We believe that a strong positive correlation exists between a strong foundation in mathematical understanding and a successful future in the learning of mathematics.
2. We believe that the Standards of Excellence is an effective model in teaching mathematical concepts, in which daily independent practice is an integral component of the student learning process.
3. We believe that if students can learn to become autonomous mathematical learners, then they will become empowered to learn without bounds.
4. We believe that if a student can be taught to seek processes and strategies instead of only answers, then he or she will be prepared to solve mathematical problems of all kinds.
5. We believe that all students should be able to effectively communicate mathematics through charts, tables, graphs, and writing.
6. We believe that if a student has developed an anxiety towards mathematics, then we can help the student to develop an appreciation of math by creating a positive, comfortable environment.
7. We believe that if students are not prepared with adequate prerequisite skills, then it is our responsibility to proactively meet this challenge.
8. We believe that if we can communicate professionally and personally, both internally and externally of the department, we will have a healthy and cohesive department.
9. We believe that if the students can be encouraged to justify their mathematical processes involved in solving problems, then we will be able to fully assess their strengths and weaknesses of understanding concepts.
10. Finally, we believe that the six National Council of Teachers in Mathematics (NCTM) principles forthcoming are sound ones:
 - *Equity*: “Excellence in mathematics education requires equity- high expectations and strong support for all students”.
 - *Curriculum*: “A curriculum is more than a collection of activities: it must be coherent, focused on important mathematics, and well articulated across the grades.”

- *Teaching*: “Effective mathematics teaching requires understanding what students know and need to learn and then challenging and supporting them to learn it well.”
- *Learning*: “Students must learn mathematics with understanding, actively building new knowledge from experience and prior knowledge.”
- *Assessment*: “Assessment should support the learning of important mathematics and should furnish useful information to both teachers and students.”
- *Technology*: “Technology is essential in teaching and learning mathematics; it influences the mathematics that is taught and enhances student learning.”

GOALS

1. Develop within each student an ability to solve problems of a procedural, conceptual, and problem-solving nature.
2. Follow a rigorous program, based on the most current mathematics standards of the Maryland State Department of Education (MSDE), which in turn are modeled from the NCTM standards, as described in the following goals:
3. “All students will demonstrate the ability to investigate, interpret, and communicate solutions to mathematical and real-world problems using patterns, functions, and algebra” (MSDE Goal 1, Functions & Algebra).
4. “All students will demonstrate the ability to solve mathematical and real-world problems using measurement and geometric models and will justify solutions and explain processes used” (MSDE Goal 2, Geometry, Measurement, and Reasoning).
5. “All students will demonstrate the ability to apply probability and statistical methods for representing and interpreting data and communicating results, using technology when needed” (MSDE Goal 3, Data Analysis & Probability).
6. All students will grow in the ten areas listed as the NCTM Standards: Numbers & Operations, Algebra, Geometry, Measurement, Data Analysis & Probability, Problem Solving, Reasoning & Proof, Communication, Connections, and Representation.

Mathematics Teachers Credentials

TEACHER	Provisional	Standard Certification	Advanced Certification	BS/BA	Advanced Degree	Master +30
Azobi, G	X			X	X	PHD Pending
Bowie, T	X			X		
Brown, W			X	X		X
Eiholzer, T		X		X		
Felder, O	X			X		
Forrest, J			X	X	X	
Forrest, E			Pending	X		
Freeman-Reid, M		X		X	X	
Jean-Julien, P	X			X		
Martin, L			X	X		+60
Mathis, N			X	X	X	
Ober, T	X			X		
Pedersen, E			X	X	X	
Reid, D			X	X		X
Richardson, J			X	X	X	
Scott, C.		X		X		
Scott, V.		X		X		
Seyoum, M		X		X	Pending 6/2005	
Sutton, J		X		X	Pending 6/2005	
Young, A	X			X		

Course Sequence

Grade	Grade 9	Grade 10	Grade 11	Grade 12
Course	Pre-Algebra Algebra 1/Algebra AL Geometry/Geometry AL Algebra 2 Algebra 2/Trig	Geometry/Geometry AL Algebra 2 or Algebra 2 /Trig Trig/Analysis Pre-Calculus	Algebra 2 or Algebra 2/Trig Trig/Analysis Pre-Calculus AP Calculus AB AP Calculus BC AP Statistics	Trig/Analysis Pre-Calculus AP Calculus AB AP Calculus BC AP Statistics

Organization Affiliations

Chess Club
 Girls Varsity and Junior Varsity Soccer
 Varsity Football
 National Society of Black Engineers, Junior (NSBE)
 National Council of Teachers of Mathematics (NCTM)
 Maryland Council of Teachers of Mathematics (MCTM)
 Association for Supervision and Curriculum Development (ASCD)

Individuals Accomplishments

Teachers continually participate in workshops and continuing education courses in order to develop strategies to promote students achievement. Teachers have participated in such programs as:

Governors Academy (Algebra 1 and Geometry)
 Standard Setting for High School Assessment
 NCTM Annual Conference
 NCTM Regional Conference
 Teachers Teaching with Technology Conference
 TI Professional Development Summer Workshops
 Advanced Placement Professional Development for AP Calculus AB/BC and AP Statistics

Students Support

Math Matters

This after school invention program designed to enhance students' proficiency in Algebra 1 and Geometry.

Tutoring

Math tutoring is conducted before and after school to assist students who are having difficulties comprehending a particular concept.

Supervision of Student Teachers

Annually several teacher serves as mentor teacher for student intern from university secondary education programs. Additionally, teachers also provide field experience for students at the university level who have aspirations of becoming a mathematics teacher.