

Athens Drive Magnet High School
Advanced Functions and Modeling
Fall 2019

Prerequisite: Mastery of Math 3 and proficiency with graphing calculator.

Curriculum: The AFM curriculum will take the concepts learned in Math3 and go farther and deeper into those concepts. Topics covered will be Solving advanced ***Polynomial Equations*** (degree 4 and higher), ***Probability*** (permutations, combinations, counting principals, and binomial theorem), ***Univariate Data*** (normal and binomial distributions), ***Exponential & Logarithmic Functions*** (natural logarithms too!), ***Trigonometry*** (both triangle & circular trig!), ***Matrices*** (fundamental operations & solving systems), ***Sequence & Series*** (exploring explicit & recursive sequences, arithmetic, geometric, and infinite sequences with applications!) and ***Financial Literacy*** (interest, taxes, credit cards, loans and more!). Strong emphasis will be placed on problem solving, investigation, analysis, discovery, and independent thinking. For each session of classroom instruction the student is expected to spend an appropriate amount of time outside of class on assignments, review and preparation. The standard course of study for AFM can be found at <http://www.ncpublicschools.org/curriculum/>

If your child feels they are falling behind or not grasping the material, they are encouraged to seek extra help with their teacher. Students who are missing work or who have below a 75% will be required to attend Advantage Time once a week. Although this time will be helpful, the length will not be enough to make up large assessments. Scheduling a time after school may be necessary.

Being in class is extremely important for your child's success. If they must miss class for an excused reason, it is their responsibility to obtain all make up work upon their return.

How Will Your Child Be Assessed

Students will be assessed using tests, quizzes, projects, and classwork. Tests will be announced at least 3 days in advance. Homework is a vital part of your child's success in the class. Homework should be expected nightly, allowing students to strengthen their skills they have learned in class.

The final grade will be calculated by dividing the points earned by the possible points. Grades will be posted online weekly. If you do not have an online account, please contact the main office. Each quarter will count as for 40% of their final grade. The final exam will make up 20% of the final grade.

Students who have missing work will be allowed to make up work with a deduction of 5 percentage points for each day that the work is late. Students who need additional support at the end of the first quarter will receive an Academic Recovery Plan that will map out specific actions that the student can take to meet the standards to pass the class.

Students will be given an opportunity to improve test grades through test corrections. The official test correction policy for AFM can be found on my website.

Supplies

Notebook, Paper, Graph Paper, Markers or Colored Pencils, Highlighter, and Pencil

Students are strongly encouraged to purchase a TI-84+ calculator.

Donations of dry erase markers, disinfecting wipes, and tissues would be greatly appreciated.

Classroom Expectations

1. Be prepared. Please have all appropriate materials when you come to class. Be ready to answer questions in class and work problems on the board. Unit handouts and homework must come to class with you everyday.
2. Be respectful. Please respect yourself, classmates, and teacher. This includes being courteous and staying alert. Keep all unnecessary comments to yourself.
3. Be on time. Please be in your seat when the bell rings – I am excited to start class as soon as possible! There are consequences for being tardy – please refer to the school tardy policy.
4. Electronics and cell phones are not to be used in the classroom unless instructed by the teacher. Historically, students who are continuously on their phones struggle more understanding concepts in class.

Academic Integrity

Students at Athens Drive are expected to uphold the Athens Drive Honor Code. In cases where a violation of the honor code is suspected, the student(s) will be invited to meet privately with the instructor, the behavior discussed and necessary paperwork will be submitted according to ADHS Academic Integrity Violation Procedures. Please see the Athens Drive web site to learn more about our Academic Integrity Policy.

Communication is key to your child's success. Please do not hesitate to contact me at any time to discuss your child's progress in AFM. My email address is smaxwell@wcpss.net. The class website can be found at www.maxwellmath.synthasite.com

I look forward to working with your child, challenging them and helping them explore the world of mathematics.

Scott Maxwell

In an effort to save ink and paper, please go to the link below to verify you have read this letter and discussed the expectations of the course with your child.

[Verify Here!](#)

If you are having difficulties with the link, you may email smaxwell@wcpss.net to verify you have read the letter. Please include the name of your child in the email and a daytime telephone number.

If all else fails, you may print this page and send it signed with your child.

Parent/Guardian Signature

Daytime Telephone Number

Parent Email Address
(please write clearly)