

Course Number and Title: Principles of Algebra

Academic Credits: 1 credit

Course Delivery Format: In person (AIS)

Teacher: *Mr. Matthew Mills*

(Fulfills graduation requirement in ALL pathways)



Teacher Summary:

I have been teaching for 9 years spending my last 7 here at Susquehanna Township High School. I have my bachelor's in mathematics and my master's in education. I look forward to working with you and your family this year!

Teacher Room Number: 302

Teacher Phone: 717-657-5117 ext: 42302

Teacher Email: mmills@hannasd.org

Office Hours: *By appointment only; please email to schedule an appointment.*

Course Description:

Principles of Algebra introduces and explores elementary functions including linear, polynomial, exponential, rational, and radical. These functions will be used to model real-world situations.

Prerequisites:

Middle School math.

Required Texts and Materials:

Writing utensils, laptops and chargers, folder

Recommended Texts and Materials:

Bring a calculator to class daily. TI-30XIS will be provided as a class set, but these cannot leave the classroom.

Course Outcomes:

The student will demonstrate through the mathematical process an understanding of:

- Structure and operations with expressions and quantities
- Creating equations that describe numbers or relationships
- Reasoning with equations and inequalities
- Interpreting and building functions
- Constructing and comparing linear functions

Units of Study/Pace of Course:

Unit	Major Topics	Standards Addressed	Approximate Length of Unit	Assignments/ Assessments
Pre-Algebra Review	-Review all pre-algebra related topics	Please click here to see Pennsylvania's Principle of Algebra Standards.	30 days	Each Unit will have 1-3 assignments per major topic, 1-3 review days, and 1-4 assessments; all based on the judgement of the educator.
Real Numbers	-Basic operations -Order of Operations -Number comparisons -Distributive Property		15 days	
Solving Equations	-Combining Like Terms -One and Two steps -Multistep -Variables on both sides -Absolute value -Consecutive integers -Perimeter problems -Mixture problems -Distance Rate Time		20 days	
Rational Numbers and Equations	-Add/subtract fractions -LCM -Clearing fractions in equations -Solving proportions -Application of proportions		24 days	
Linear Equations	-Rate of change -Direct Variation -Slope-int form -Point-slope form -Standard form -Parallel & Perpendicular equations		30 days	
One variable Inequalities	-One and Multistep -Compound -Absolute value		28 days	
Systems of Linear Equations and linear inequalities	-Graphing -Elimination method -Substitution method -Application		25 days	
Exponents and Polynomials	-All exponent rules -Operations with polynomials -Factoring polynomials & GCFGCF		25 days	

Procedures for Late Assignment:

Assignments are expected to be completed by the next day.
Late work will be accepted up to the last day of the unit.

Procedures for Redo Work:

Work will need to be redone if students wish to retake an assessment.

Procedure for Extra Credit:

No extra credit will be offered.

Calculation of Final Grade:

CATEGORY	Percent of Quarter Grades	Percent of Overall Grade
<i>Assessments</i>	60%	<i>Q1 = 20%</i> <i>Q2 = 20%</i>
<i>Demonstration of Knowledge</i>	30%	<i>Q3 = 20%</i> <i>Q4 = 20%</i>
<i>Learning Opportunities</i>	10%	<i>Midterm = 10%</i> <i>Final = 10%</i>
Total:	100%	100%

Grading Scale:

- A - 90% - 100%
- B - 80% - 89%
- C - 70% - 79%
- D - 60% - 69%
- F - 0% - 59%

SOAR in the Classroom:

Students in the Susquehanna Township School District will S.O.A.R.		
Safety	Ownership/Accountability	Respect
<ul style="list-style-type: none">• Keep your body in control and keep your hands, feet, and objects to yourself.• Report safety concerns to an adult as soon as possible.• Walk at all times.• Follow the safety rules in every setting.	<ul style="list-style-type: none">• Be honest.• Own your choices and actions.• Model good sportsmanship.• Do your best to be prepared for all settings.• Finish your work to the best of your ability.• Learn from your mistakes.• Be on time.• Take an active role in your learning.• Follow directions the first time they are given.	<ul style="list-style-type: none">• Listen to and value others' opinions.• Do use language that is appropriate for all settings and that does not include profanity.• Use appropriate volume for all settings.• Value cultural differences.• Be kind and polite to peers and adults through words and actions.• Care for your property and the property of others.

Class Attendance Policy:

Click [HERE](#) for the board approved attendance policy.

Cell Phone Policy:

Click [HERE](#) for the board approved electronic device policy.

Academic Integrity Policy:

Click [HERE](#) for the board approved academic integrity policy.

Pass Policy:

All students must use e-hall pass to sign out of class.

Academic Assistance Program (AAP):

Need additional assistance in the class? Come to AAP after school on Mondays, Tuesdays, and/or Thursdays from 2:37-4:30pm in the library. A certified teacher will be on staff to help with any work or questions you may have. Students may ride the 4:30pm late bus home from AAP.