



Northglenn High School
 601 West 100th Place • Northglenn, CO 80260
 Office: (720) 972-4600 • Fax: (720) 972-4739
<http://www.northglennh.adams12.org>



School Year	2020-2021	Teacher Name	Sirena Shock
Room/Office	Room 237	Website	shockmath.weebly.com
Phone	Email is best	Schoology	Period 6: V3KS-94GV-RWDJ3
Email Address	sirena.shock@adams12.org	Access Code	Period 8: G9NR-8W2V-GFMXK

Course Name	Integrated Math 4		
Course Description	In Integrated Math 4, students will investigate how advanced mathematics concepts are used to solve problems encountered in operating national parks. As students venture from algebra to trigonometry, they analyze and articulate the real-world application of these concepts. The purpose of this course is to study functions and develop skills necessary for the study of calculus. This course includes algebra, analytical geometry, and trigonometry.		
Unit of Study	Grade Level Expectations/Content Standards	Approximate Time Spent	Targeted Date of Assessment
Module 1 Functions and Their Graphs	In this module, we will study one of the most fundamental concepts of mathematics: functions. When we find a function that models a real-world situation, we are often able to use the power of mathematics to answer questions that would be difficult or impossible to answer by trial and error methods.	16 days	10/2/2020
Module 2 Polynomial and Rational Functions	In this module, we will use polynomial and rational functions to represent and solve problems from real-world situations while focusing on symbolic and graphical patterns.	16 days	11/6/2020
Module 3 Exponential and Logarithmic Functions	In this module, we will study two types of functions that are widely used to model phenomena often found in real life. The population growth of a species entering a new area can be modeled using exponential and logarithmic functions. The concepts learned in this module will build a foundation for mathematical exploration of our world.	16 days	12/11/2020
Module 4 Trigonometric Functions	In this module, we begin our study of trigonometry. We use a unit circle to define the trigonometric functions and to learn their properties. Trigonometry provides us with the tools to solve a variety of problems, and can be used to model any real-world event that is cyclic, such as weather and tidal patterns.	16 days	2/5/2020
Module 5 Analytic Trigonometry	In this module, we will look at the different identities for the trigonometric functions and use them to simplify expressions, evaluate functions, and solve equations.	16 days	3/5/2020
Module 6 Vectors	In this module, we study two-dimensional vectors and their use in modeling linear and nonlinear motion.	12 days	4/2/2020
Module 8 Topics in Analytic Geometry	In this module, we will study conic sections and systems of quadratic equations. Parabolas, ellipses, and hyperbolas will be analyzed. The concepts learned in this module will build a foundation for additional mathematical exploration of our world.	16 days	5/7/2020
<ul style="list-style-type: none"> ★ All targeted assessment dates are tentative and may change as needed pending remote vs. in-person learning. ★ An additional module studying limits will be added in May if time allows. 			
Grading Scale		Grade Percentages/Weights	
A	90-100	Formative* 20%	Summative* 80%
B	80-89		
C	70-79		
D	60-69	*Weekly progress grades are posted at https://ic.adams12.org/campus/portal/adams12.isp	
F	59 or below		



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General Expectations

- Grades are based upon the demonstration of proficiency on units associated with a standard given during each formative or summative assessment. Formative grades in addition to summative unit assessments will be used to holistically determine your grade.
- **Summative: 80%** Summative measures of achievement are taken when unit mastery is expected. (i.e., unit tests, culmination of a project, embedded assessments, etc.)
- **Formative: 20%** Formative assessments measure the scaffolding skills and/or content embedded in the unit. Formative assessments are taken frequently, after a student has practiced a skill or become familiar with content. Examples of formative assessments include but are not limited to exit tickets, paragraphs, oral check for understanding, warm-ups, stages in a large project, etc.
- Assessments will be graded based on teacher/district/state rubrics.
- On group projects, students will receive a grade for individual work and a group grade.
- Grades are based on achievement of Content Standards and Grade Level Expectations.

Class Expectations

Missing or incomplete assignments/assessments: Superintendent Policies 6280 Homework and 6281 Make-Up Work, will be followed for this course.

Additional Help:

- ❖ I will be available on Wednesdays from ### to give extra help. Please send me an email if you would like to set up a different time to meet and we can schedule an appointment. Once we return to in-person learning, I may need to adjust this.

Materials and Supplies Needed Daily

- ❖ While in Remote Learning: computer/chromebook, spiral notebook and pencil

Accommodations

A variety of teaching techniques are used to meet the diverse needs of students. I am available by phone or appointment to discuss concerns or needs of students with special needs.

Assessments Used To Evaluate Student Progress

Assignments, Activities, Observations, Participation, Quizzes, and Tests

Motivation Used

- ❖ A variety of activities, real-world contexts and individual and group work that engage and stimulate students to think about math are a part of this curriculum.
- ❖ Students are encouraged to be engaged and motivated in the completion of their assignments.

Student Expectations

Expectations for Classroom Behavior

- ❖ Students will be engaged in class during the designated time frames. Meaning no extra tabs open. Students should be focused on what is being taught or the assignment they should be working on.
- ❖ During live videos, (Google Meet or Zoom),
 - Students will stay muted unless wanting to contribute to the lesson or ask/answer a question.
 - All live online sessions that include a lesson will be recorded and posted on Schoology.
 - Video may be turned on or off based on individual class norms.
- ❖ Students will use school appropriate language on any and all school related tasks. There will be no “abusive” language tolerated.
- ❖ Attendance will be taken for every class during the 1st ten minutes of class.