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| **School Year** | 2019-2020 | **Teacher Name** | Megan Shaw |
| **Office** | Room 233 | **Website** | mathforshaw.weebly.com |
| **Phone** | 720-972-2665 | **Email Address** | megan.shaw@adams12.org |

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| **Course Name** | **Math Analysis and Trigonometry** |
| **Course Description** | Math Analysis and Trigonometry summarizes and extends the development of high school mathematics developed through the interwoven strands of algebra, geometry, trigonometry in the Contextual Mathematics (CMIC) courses. This course focuses on the connecting and refining the mechanics of algebra, functions, and trigonometry. Prerequisite for class must have completed CMIC 3 with a D or better. |
| **Unit of Study** | **Grade Level Expectations/Content Standards** | **Approximate Time Spent or Percent of time Spent** | **Targeted Date of Assessment** |
| Unit 1:Linear Functions and Quadratics | * Perform arithmetic operations with complex numbers (CCSS: N-CN)
* Use complex numbers in polynomial identities and equations (CCSS: N-CN)
* Analyze functions using different representations(CCSS:F-IF)
* Construct and compare linear, quadratic, and exponential models and solve problems(CCSS: F-LE)
 | 7 weeks | 10/4/19 |
| Unit 2: Polynomial Functions | * Perform arithmetic operations on polynomials( CCSS: A-APR)
* Understand the relationship between zeros and factors of polynomials. (CCSS: A-APR)
 | 3 weeks | 10/25/19 |
| Unit 3:Inequalities | * Solve equations and inequalities in one variable(CCSS: A-REI)
* Solve systems of equations(CCSS: A-REI)
* Represent and solve equations and inequalities graphically (CCSS: A-REI)
 | 3 weeks | 11/15/19 |
| Unit 4:Functions | * Formulate the concept of a function and use of function notations(CCSS: F-IF)
* Analyze functions using different representations( CCSS: I-IF)
* Build a function that models a relationship between two quantities(CCSS: F-BF)
 | 3 weeks | 12/13/19 |
| Unit 5:Exponents and Logarithms | * Extend the properties of exponents to rational exponents(CCSS: N-RN)
* Construct and compare linear, quadratic, and exponential models and solve problems( CCSS: F-LE)
 | 2 weeks | 1/17/19 |
| Unit 9:Triangle Trigonometry | * Define Trigonometric rations and solve problems involving right triangles ( CCSS: G-SRT)
 | 3 weeks | 2/5/20 |
| Unit 7:Trigonometric Functions | * Understand and apply theorems about circles (CCSS: G-C)
* Find arc length and areas of sectors of circles ( CCSS: G-C)
 | 4 weeks | 3/6/20 |
| Unit 8:Trig Equations and Applications | * Prove and apply trigonometric identities(CCSS: F-TF)
* Model periodic phenomena with trigonometric functions(CCSS: F-TF)
 | 4 weeks | 4/3/19 |

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| **Grading Scale** | **Grade Percentages/Weights** |
| **A** | 90-100 | **Summative Assessments & Projects** | **80%** |
| **B** | 80-89 | **Formative Assessments & Projects** | **20%** |
| **C** | 70-79 | **\*Weekly progress grades are posted at https://ic.adams12.org/campus/portal/adams12.isp** |
| **D** | 60-69 |
| **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 master 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.
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| **Class Expectations****Missing or incomplete assignments/assessments for this course:** Superintendent Policies 6280 Homework and 6281 Make-Up Work, will be followed for this course.  |
| **Additional Help:** * I will be available in room 233 during 1st hour, 5b lunch, or 6th hour most days to give extra help. Please let me know if you plan on stopping by. If that time does not work, please set an appointment.

**Materials and Supplies Needed Daily*** Paper, Pencil , Textbook: Textbook: *Contemporary Mathematics in Context, Course 3*, Graph paper, Calculator: TI83 or 84 (will be provided during class if student doesn’t have one), Composition Book, Red Pen

**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, Investigations, Observations, Participation, Quizzes, and Tests**Motivation Used*** A variety of hands-on techniques, investigations, real-world contexts 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.
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| **Student Expectations** |
| **Participation*** Students will be working collaboratively and actively in groups. Each student is expected to be reading the assigned text and writing/making computations for each problem given in an investigation. Thus, every student will be expected to work and participate each day.

**Classroom Rules/Expectations*** No cell phones/electronics should be out during class time. The first time in a semester that an electronic device is seen the student will be asked to put it away. The second time the device will be taken away for the remainder of the class period. After that the device will be taken to Student Relations to be picked up after school.
* Food/drinks are allowed in the classroom unless it becomes a distraction and/or trash and spills are left on the desks and floors.

**Retakes**Retakes will not be given. Please be prepared ahead of time and get extra help if needed. Formative assessments should be used to practice and learn for Summative or Unit Tests. |

**Additional Rules and Expectation may be implemented at any time.**

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*“I have read the above expectations and agree to abide by them.”*

Student Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*“I am aware of the expectations for this class. Contact me if a situation requires my attention.”*

Parent/Guardian Name (please print):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Preferred method of contact: \_\_\_\_\_\_\_ Email \_\_\_\_\_\_\_Phone (daytime) \_\_\_\_\_\_\_Phone (evening)

Email: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Phone (daytime) :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_( evening):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_