Integrated Modern Algebra: 2B
Wall High School
2023-2024

Teacher: Jennifer Glass (jglass@wallpublicschools.org)

Google Classroom Class Code: 4shzvlu

Extra Help Schedule, Location, and Procedures:
- **Extra Help will be 1st A day of the week in Room E-2 during unit lunch**
- **Come to extra help frequently**

Marking Period Schedule

Marking Period 1 9/6/2023 - 11/7/2023	**Marking Period 3** 1/29/2024 - 3/28/2024
Marking Period 2 11/8/2023 - 1/19/2024	**Marking Period 4** 3/29/2024 - 6/6/2024
Midterm Exams 1/22/2024 - 1/26/2024	**Final Exams** 6/7/2024 - 6/14/2024

Course Description:

The curriculum for Integrated Modern Algebra is based on the belief that mastery in learning takes place over an extended period of time. When a skill or concept is introduced and practiced, students develop familiarity with it. The intent of this course is to enable students to move toward independent learning within the context of review and extension of these skills with introduction to topics essential for further study of mathematics. Emphasis is placed on reinforcement of fundamental skills and concepts. The course focuses on families of functions, including linear, quadratic, exponential and rational functions. Students are introduced to the complex number system. Other topics of study include trigonometry and data trends. As this course follows Algebra 1 and Geometry, students who successfully complete this course will meet the NJDOE three-year mathematics graduation requirement. Students who successfully complete and wish to continue to pursue mathematics at Wall High School can enroll in Algebra 2 CP as a senior. As this is a non-required precursor for Algebra 2 CP, students who have successfully completed Algebra 2 CP are not eligible to take this course

Units of Study:
1. Expressions, Equations and Functions
2. Function Families
3. Linear Functions
4. Quadratic Functions

5. Systems
6. Exponents and Exponentials
7. Rational Functions
8. Trigonometric Ratios and Functions

Classroom Expectations to Ensure your Success:
1. Students will treat all peers, teachers and faculty with respect.
2. Students will bring binder or notebook, charged Chromebook, and pencils every day.
3. Cheating/copying/plagiarism will not receive credit and will be documented for school purposes.
4. Cell phones will be placed on the desk in the front of the room/in the calculator bin at the beginning of of class.
5. Abide by the Wall High School policies and rules. Failure to comply will result in the following consequences:
   First Offense: Student Conference
   Second Offense: Teacher detention
   Third Offense: Parent/Guardian Contact
   Fourth Offense: Referral to Administration/Central Detention

Materials & Available Resources
To be successful in this course, you will need:
1. Graphing Calculator (Recommended/classroom set/online tool)
2. Pencils/Pens
3. 3 ring binder
4. Loose leaf paper or notebook
5. Charged chromebook

Grading Breakdown
Each quarter grade is based on a percentage model; the following grading formulas have been established.

Marking Period Category Percentages

Category	Minimum Number	Percentage
Major Assessments	2	40%
Minor Assessments	4	40%
Homework/Classwork	10	20%

Course Grading

Category	Percentage
Marking Period 1	20%

Marking Period 2	20%
Midterm Exam	10%
Marking Period 3	20%
Marking Period 4	20%
Final Exam	10%

Marking Period 1*

Big Ideas	Topics/Themes/Concepts	Activities & Assessments	Timeline (Number of Blocks)
Unit 1: Expressions, Equations and Function Families	Apply the order of operations to simplify expressions involving rational numbers. Interpret parts of an expression, such as terms, factors, and coefficients. Classify polynomials by degree and number of terms. Add, subtract and multiply polynomials. Solve multi step equations	Class notes Class practice Quiz	3.5 Sept. 6–Sept 15
	Understand functions Use function notation, Evaluate functions algebraically and graphically	Class notes Class practice Quiz	4.5 Sept. 13–Sept. 26
	Identify where a graph is increase, decrease, and Constant Match stories with graphs	Class notes Class practice Cumulative Review Unit Assessment	2 Sept. 26–Sept. 28
Unit 2: Linear Functions	Calculate and interpret the average rate of change Estimate the rate of change	Class notes Class practice quiz	3 Oct. 2–Oct. 6

	from a graph and compare rate of change associated with different intervals. Write linear function in slope intercept, standard form and point slope form. Graph linear functions from a table, an equation or a described relationship.		
	identify if two lines are parallel, perpendicular, or neither. Arithmetic Sequences	Class practice Class notes Cumulative Review Unit Assessment (½ Block)	4.5 Oct. 10-Oct. 23
Unit 3: Quadratic Functions	Factor and solve quadratic Functions	Class practice Class notes quiz	3 Oct. 25-Oct. 31
	Solve quadratics by taking square roots	Class practice Class notes	1 Nov. 2

Marking Period 2			
Quarterly 1	Review & Assessment	Class Notes Cumulative Review Cumulative Assessment	Nov. 14- Nov. 16
Unit 3: Quadratic Functions	Factor and solve quadratic Functions Solve quadratics by taking square roots, Completing the Square & Quadratic Formula Unit 3 Part 1 Review and Assessment	Class practice Class notes quiz	5 Nov. 20 -Dec. 4
		Class practice Class notes	4 Dec. 6-Dec. 14
		Class practice Unit review Unit assessment	2 Dec. 18 - Dec. 20
	Unit 3 Part 2	Class practice	4

	Graphing Quadratic Functions in Vertex and Standard Form	Class notes Review and assessment	Jan. 3 - Jan. 12
Midterm Exam Review			2 Jan. 16-Jan.18

Big Ideas	**Topics/Themes/Concepts**	**Activities & Assessments**	**Timeline (Number of Blocks)**
Unit 1: Expressions, Equations and Function Families	Apply the order of operations to simplify expressions involving rational numbers. Interpret parts of an expression, such as terms, factors, and coefficients. Classify polynomials by degree and number of terms. Add, subtract and multiply polynomials. Solve multi step equations	Class notes Class practice Quiz	3.5 Sept. 6-Sept 15
	Understand functions Use function notation, Evaluate functions algebraically and graphically	Class notes Class practice Quiz	7.5 Sept. 13-Oct. 3
	Identify where a graph is increase, decrease, and Constant Match stories with graphs	Class notes Class practice Cumulative Review Unit Assessment	4 Oct. 4 - Oct. 10
Unit 2: Linear Functions	Calculate and interpret the average rate of change Estimate the rate of change from a graph and compare rate of change associated with	Class notes Class practice quiz	6 Oct. 13-Oct. 27

	different intervals. Write linear function in slope intercept, standard form and point slope form. Graph linear functions from a table, an equation or a described relationship.		
	identify if two lines are parallel, perpendicular, or neither. Arithmetic Sequences	Class practice Class notes Unit Review Unit Assessment (½ Block)	4.5 Oct. 31–Nov. 8
Marking Period 2			
Quarterly 1	Review & Assessment	Class Notes Cumulative Review Cumulative Assessment	Nov. 14- Nov. 16
Unit 3: Quadratic Functions	Factor and solve quadratic Functions Solve quadratics by taking square roots, Completing the Square & Quadratic Formula Unit 3 Part 1 Review and Assessment	Class practice Class notes quiz	5 Nov. 20 –Dec. 4
		Class practice Class notes	4 Dec. 6-Dec. 14
		Class practice Unit review Unit assessment	2 Dec. 18 – Dec. 20
	Unit 3 Part 2 Graphing Quadratic Functions in Vertex and Standard Form	Class practice Class notes Review and assessment	4 Jan. 3 – Jan. 12
Midterm Exam Review			2 Jan. 16–Jan.18
Marking Period 3			
Unit 4: Systems	**Graphing** Linear Systems	Class Notes Class Practice	3 Jan. 30 – Feb. 6

	Linear-Quadratic Systems Quadratic Systems	Class Quiz	
	Algebraically Linear Systems Linear-Quadratic Systems Quadratic Systems	Class Notes Class Practice Class Quiz	2 Feb. 8 – Feb. 12
	Linear Applications	Class Notes Class Practice Exit Pass	1 Feb. 14
	Graphing Linear Inequalities Systems of Linear Inequalities	Class Notes Class Practice Class Quiz	2 Feb. 16 – Feb. 22
	Unit Review **Unit Assessment**	Review Assessment	2 Feb. 26 – Feb. 28
Unit 5: Exponential Equations	Law of Exponents	Class Notes Class Practice Exit Pass	1 Mar. 1
	Transformations Graphing Exponential Equations Identifying Key Characteristics of Exponential Equations	Class Notes Class Practice Class Quiz	3 Mar. 5 – Mar. 11
	Geometric Sequences	Class Notes Class Practice Exit Pass	1 Mar. 13
	Unit Review **Unit Assessment**	Review Assessment	2 Mar. 15 – Mar. 19
Cumulative	**Cumulative Review** **Cumulative Assessment**	Review Assessment	2 Mar. 21 – Mar. 25

Subject to revision

Make-up Work as per Student Handbook
- Students who are absent from class for any reason will be required to make-up the work missed in each class. Completion of this work should take approximately the same amount of time as the student missed from class. In extreme cases of prolonged absence, (more than five consecutive days,) the Principal may grant extra time for the students to complete missing assignments. Students will receive an incomplete grade pending the submission of the missing assignments. Students will receive a zero for any work that is not completed by the designated timeline.

- It is the student's responsibility to obtain all make-up work from his/her teachers immediately upon return to school. Failure to obtain makeup work is no excuse for not completing work missed. Students have the same amount of time that they have been absent to make up the work.

Academic Integrity Policy as per Student Handbook
<u>**Plagiarism Policy**</u>
- **Freshmen**: On the first offense, the student may rewrite for a maximum grade of 55. The rewrite should be closely monitored by the teacher because on the freshmen level we are concerned with students' understanding of the process. On the second offense, the student receives a 0 grade for the final product. (Students' offenses will be filed in the supervisor's office.)
- **Sophomores, Juniors and Seniors:** If the teacher finds that the plagiarism is flagrant or pervasive and can document the same, the assessment may receive a grade of zero.

<u>**Cheating**</u>
Students are expected to conduct themselves honestly and with integrity in their work. All forms of cheating and plagiarism are prohibited. Behavior that is unacceptable includes, but is not limited to the following:
- Copying another student's work;
- Working with others on projects that are meant to be done individually;
- Looking at or copying another student's test or quiz answers;
- Allowing another student to look at or copy answers from one's test or quiz;
- Using any other method (ie "cheat sheets", communicating in any form) to get/give test or quiz answers;
- Taking a test or quiz in part or in whole to use or to give to others;
- Copying information from a source without giving proper acknowledgment;
- Taking papers from other students, publications, or internet sources and claiming it as one's own work;
- Academic dishonesty in any other form including, but not limited to, tampering with computerized grade records;
- Giving or receiving answers and/or test questions to or from another student.

Violators of this policy will be disciplined on a case-by-case basis, depending on the seriousness of the violation, prior violations and other factors.

Disciplinary measures/consequences may include, but are not limited to the following:
- Redoing the assignment (see policy on plagiarism);
- Receiving a zero grade on the project, test or quiz;
- Letter sent to parent and placed in the student's file;
- Detention, suspension or expulsion.