

2026

Algebra 2

2027

Courtney Guthrie

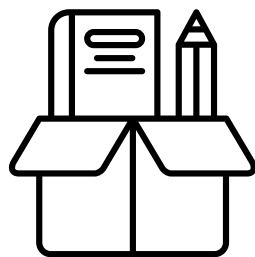
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About Algebra 2

This course is an extension of Algebra 1. Students will build upon their basic algebraic concepts and study more advanced problem-solving skills.

Students will learn to express real-world problems in algebraic sentences and then find solutions. Everything done in this class will have a learning objective behind it. I will let students know what these objectives are as we begin each class period. All students can be successful. I will do everything I can to help each of you build a solid math foundation but I cannot do it alone. Students must do their part as well. The rest of this syllabus outlines what is expected of students in Algebra 2.

Materials



Pencil
Notebook Paper
Small binder or a folder with
brads

Tutorials

Tuesdays before school, 7-7:25
Wednesdays after school, 3:05-3:30
For other days, just ask!
Falcon Library Monday and Thursday,
3-5:30

Grades

Major: 40%

Minor: 60%

Test (Weight 2)

Daily Practice

Quiz (Weight 1)

Exit Ticket

Project Final Product

Skills Practice

(Weight 1)

Project Checkpoint

Contact Info

Preferred: Email or ParentSquare

Conference: 1:25-2:10

Responses within 24 hours M-F

Technology and Personal Devices

Students will be expected to leave their phone turned off and in their bags. Students will also not be permitted the use of earbuds, headphones, or smartwatches during class and must also remain off and in bags.

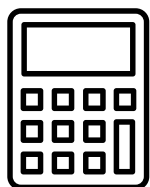
Any student who does not follow this policy will be subject to disciplinary action. This includes the improper use of math apps to cheat on assignments.

Late Work

We will follow Lake Dallas
ISD's late work policy.

All late work for each
Module is due by the end
of the 9 weeks.

Calculators



While it is not required, students may purchase a calculator for home use if they prefer. Our class will use TI-84 Plus CE.

I also recommend an emulator app for the phone that students can use that has the same abilities as the TI-84 Plus CE

iPhone: Calculate84

Android: Calc84

iPad: ti84-online.com

Not having a calculator does not excuse you from the activities/quizzes/tests/homework.

Algebra 2 Course Outline

This is the plan of modules and topics in the Bluebonnet curriculum.

Students will have a Bluebonnet workbook that contains notes and assignments and a skills practice book. These books will remain in the classroom, but assignment pages can be torn out. Any classwork assigned that is not finished by the end of class should be taken home and completed for homework.

Module 1: Extending Linear Relationships

- Topic 1: Absolute Value Functions and Equations
- Topic 2: Applications of Linear Relationships

Module 2: Exploring Quadratic Functions

- Topic 1: Quadratic Functions and Equations
- Topic 2: Applications of Quadratics

Module 3: Analyzing Structure

- Topic 1: Composing and Decomposing Functions
- Topic 2: Attributes of Cubic Functions
- Topic 3: Relating Factors and Zeros

Module 4: Extending Beyond Polynomials

- Topic 1: Rational Functions
- Topic 2: Radical Functions
- Topic 3: Radical Equations

Module 5: Exploring Exponentials and Logarithms

- Topic 1: Exponential and Logarithmic Functions
- Topic 2: Exponential and Logarithmic Equations

Our midterm and final exams will be presentations of projects we will complete at the end of each semester.

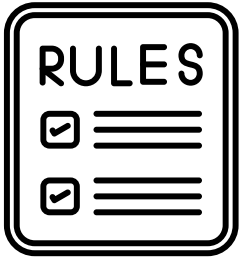
There are no longer exemptions for semester and final exams, per school policy.

Retake Policy

If a student would like to retake a test or quiz, they must do the following before retesting will be allowed:

1. Have completed 100% of the practice for that unit and turned it in prior to unit test.
2. Attend an after school tutorial with Mrs. Guthrie where the student will review misunderstandings on the topic test. Corrections must be on a separate piece of paper including the problem, steps to solve and answer.
3. Bring in a teacher provided form signed by both the parent/guardian and student.
4. Retake must be taken prior to the next unit test.
5. Students will only be allowed to retake the test one time
6. Max grade on a retake is an 85, and student will keep whichever grade is highest (original vs. retake score)
7. Students may simply correct the test for a 70 if they prefer.

Expectations



Students will be expected to:

- Be respectful of their peers, their environments, and their instructor
- Take responsibility for their actions
- Always give their best effort
- Come to class prepared
- Be an active participant
- Celebrate mistakes! This means you are LEARNING!
- Maintain academic honesty and integrity

Other Expectations

Leaving the Classroom

Students must ask for permission to use the restroom or leave for any reason. It is strongly encouraged that the student waits until the lesson is finished, but as long as the privilege isn't abused, I am flexible.

Eating in Class

I allow food/drinks in class as long as any and all trash/spills are cleaned up. Failure to clean up after yourself will result in the entire class losing food privileges.

Consequences

If any classroom expectations are not met, the following steps will be taken

1. Redirect the student, review consequences, and contact parent/guardian
2. Give the student appropriate consequence, contact parent/guardian, document behavior
3. Contact the parent/guardian and submit an office referral

(per the Student Handbook, some offenses may require me to skip straight to office referral)

I give my students opportunities to make corrections of behaviors on their own at first, but if there is no improvement, I will ask parents/guardians to assist.

Classroom Routine

The typical routine in the classroom will be as follows (excluding test days):

1. Students enter the classroom, head to their seats, and ready materials. This is also the time for students to turn in any assignments due.
2. Students will begin on the day's warm-up
3. Once the tardy bell rings, students will be given a notice of remaining time to complete the bellwork, no more than 5 minutes.
4. We will then begin the lesson, usually concluding with an exit ticket. Some classes will end with a full assignment rather than an exit ticket that will need to be taken home as homework if it is not finished in class.
5. At the end of the class at the teacher's direction, students will be expected to quietly pack up and remain in their seats until the bell rings.

Algebra 2 Full First Semester Outline

Module 1, Topic 1: Absolute Value Functions and Equations

- TEKS: 2A.2A, 2A.6C, 2A.6D, 2A.6E, 2A.6F, 2A.7I
- Learning Objectives: Define absolute value functions, transformations of absolute value functions, absolute value equations and inequalities
- Activities: Practice problems, test, group work

Module 1, Topic 2: Applications of Linear Functions

- TEKS: 2A.2B, 2A.2C, 2A.3A, 2A.3B, 2A.3E, 2A.3F, 2A.3G
- Learning Objectives: Solving systems of equations, optimization, solving systems with matrices, inverses of linear functions
- Activities: Practice problems, test, group work

Module 2, Topic 1: Quadratic Functions and Equations

- TEKS: 2A.3A, 2A.3B, 2A.4A, 2A.4B, 2A.4D, 2A.4F, 2A.7A, 2A.7B
- Learning Objectives: Forms of quadratic functions, writing quadratic functions, solving quadratic equations, imaginary and complex numbers
- Activities: Practice problems, test, group work

Module 2, Topic 2: Applications of Quadratics

- TEKS: 2A.3A, 2A.3C, 2A.3D, 2A.4B, 2A.4E, 2A.4H, 2A.8A, 2A.8B, 2A.8C
- Learning Objectives: Solving quadratic inequalities, systems of quadratic equations, modeling with linear and quadratic functions, equation of a parabola
- Activities: Practice problems, test, group work

Module 3, Topic 1: Composing and Decomposing Functions

- TEKS: 2A.2A, 2A.4F, 2A.7B, 2A.7I, 2A.8A
- Learning Objectives: Modeling with functions, transforming function shapes, exploring cubic functions, decomposing cubic functions
- Activities: Practice problems, test, group work

Module 3, Topic 2: Attributes of Cubic Functions

- TEKS: 2A.2A, 2A.6A, 2A.7I
- Learning Objectives: Symmetric functions, transformations of cubic functions, key attributes of cubic functions
- Activities: Practice problems, test, group work