

Algebra 2 Syllabus Outline

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Lake Dallas High School

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Dear Parents and Guardians,

Welcome to Algebra 2 at Lake Dallas High School! This syllabus outlines the course plan for your child's class this semester, including key topics, expectations, and how you can support their success. As required by Texas law (Senate Bill 12), this document serves as the instructional plan and is available for your review. I look forward to working with you and your child!

Contact Information

- **Teacher:** Tracey Johansen
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 - **Best Way to Reach Me:** Email or call the school office. I'll respond within 24 hours on school days.
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Course Overview (Instructional Plan)

This semester, your child will study the following topics in Algebra 2, based on Texas state standards (TEKS):

1. Unit 1: Equations and Inequalities

TEKs Addressed: 2A.1A, 2A.1B, 2A.1E, 2A.6D, 2A.6E, 2A.6F, 2A.7I

1.1 Real Number System and Notation (Interval and Set)

1.2 Multi-Step Equations

1.3 Linear Inequalities

Quiz

1.4 Absolute Value Equations

1.5 Absolute Value Inequalities

Test

Choice Board

2. Unit 2: Linear Systems

TEKs Addressed: 2A.1A, 2A.1B, 2A.1E, 2A.3A, 2A.3B, 2A.3E, 2A.3F, 2A.3G, 2A.8A, 2A.8B, 2A.8C

2.1 Solving 2x2 by substitution
2.2 Solving 2x2 by elimination
2.3 Applications (word problems) of systems
Quiz
2.4 Solve 3x3 by substitution
2.5 Solve 3x3 by elimination
2.6 Systems of Inequalities
Test
Choice Board

3. Unit 3: Parent Functions and Transformations

TEKs Addressed 2A.4B, 2A.4C, 2A.4H 2A.6C

3.1 Piecewise Functions
3.2 Parent Functions and Transformations (Quadratic and Absolute Value)
3.3 Converting Standard Form to Vertex
Quiz
3.4 Key Features of Parabolas
3.5 Quadratic and Absolute Value Inequalities
Test
Choice Board

4. Unit 4: Solving Quadratic Equations

TEKs Addressed 2A.4A, 2A.4E, 2A.4F, 2A.7A, 2A.8A, 2A.8B, 2A.8C

4.1 Solving by Square Roots
4.2 Complex Numbers & Simplifying Radicals
Quiz
4.3 Complete the Square
4.4 Quadratic Formula
4.5 Applications (Word Problems)
Test
Choice Board

5. Additional Skills

- Developing critical thinking, note-taking, error analysis, decision making, communication, making connections and time management.
- Example: Preparing for a unit test, tracking progress towards their goals, choice of activities, explaining steps and finding errors,

Thank you for supporting your child's education! Feel free to contact me with questions.

Sincerely,
Tracey Johansen