# **Precalculus Syllabus Outline**

# Ms. Jauregui - Lake Dallas High School

#### Fall 2025

Dear Parents and Guardians,

Welcome to Precalculus 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: Ms. Jauregui

• Email: cjauregui@ldisd.net

Phone: 940-497-4031

• Conference Time: 7th Period (1:25-2:10 PM) Monday - Friday

 Best Way to Reach Me: Email is always the best way to reach me on a consistent basis. I will respond by the end of the following school day.

## **Course Overview (Instructional Plan)**

This semester your child will study the following topics in Precalculus, based on the standards set by the Texas State Board of Education in the Texas Essential Knowledge and Skills (TEKS):

- 1. Unit 1: Prerequisite Skills (To establish a solid base and refresh knowledge before learning new information)
  - Learning topics: Exponent rules (Algebra 2 7H, 7G), factoring patterns and rules (Algebra 2 7D, 7E), rational expressions (Algebra 2 7F), radicals and rational

exponents (Algebra 2 2H, 2F), complex numbers (Algebra 2 ), solving equations (Algebra 2 ), quadratic equations (Algebra 2 ), radical equations (Algebra 2 ), and inequalities (Algebra 2 )

 Activities: Class lectures, warm-up problems, exit tickets, problem sets, Delta Math assignments, Blooket games, review activities, quizzes, and tests

#### 2. Unit 2: Functions and Their Graphs

- Learning topics: Features of functions and non-functions (such as domain and range, critical points, intercepts, zeros, symmetry, continuity, and end behavior) (Precalculus 2A, 2B, 2C, 2D, 2I, 2J, 2L, 2M), parent functions and transformations (Precalculus 2I), graphing functions (Precalculus 2I, 2F), composition of functions (Precalculus 2A, 2B, 2C), piecewise functions (Precalculus 2F), inverse relations and functions (Precalculus 2E)
- Activities: Class lectures, warm-up problems, exit tickets, problem sets, Delta
   Math assignments, Blooket games, review activities, quizzes, and tests

#### 3. Unit 3: Power, Polynomial, and Rational Functions

- Learning topics:Graphing power functions and identifying their characteristics (Precalculus 2F, 2G), graphing polynomial functions and identifying their characteristics (Precalculus 2K), zeros, linear factors, and multiplicity (Precalculus 2I), dividing polynomials (using the Remainder Theorem, Factor Theorem, Rational Zero Theorem, Descartes' Rule, and the Fundamental Theorem of Algebra) (Precalculus 5J, 5K, 5L), using zeros to write polynomial functions, graphing rational functions (Precalculus 2G, 2K), nonlinear inequalities (Precalculus 5K, 5L)
- Activities: Class lectures, warm-up problems, exit tickets, problem sets, Delta Math assignments, Blooket games, review activities, quizzes, and tests

#### 4. Unit 4: Exponential and Logarithmic Functions

- Learning topics: Graphing exponential functions (Precalculus 2F, 2G, 2I, 2J, 2N, 5I), logarithms and their properties (Precalculus 2F, 2G, 2I, 2J, 2N, 2G, 2H), exponential growth and decay in the real world (Precalculus 5G, 5H, 5I), compound interest (5I)
- Activities: Class lectures, warm-up problems, exit tickets, problem sets, Delta
   Math assignments, Blooket games, review activities, quizzes, and tests

#### 5. Unit 5: Trigonometry

- Learning objectives: Standard form of an angle (Precalculus 4C), degrees and radians (Precalculus 4C, 4D), circular motion (Precalculus 4D), trigonometric functions (Precalculus 4E, 4F), reciprocal functions (Precalculus 4E, 4F), right angle triangle trigonometry (Precalculus 4E, 4F), reference angles (Precalculus 4B), the unit circle (Precalculus 4B), Law of Sines and Law of Cosines (Precalculus 4G, 4H), graphs of trigonometric functions (Precalculus 4A), graphs of reciprocal functions (Precalculus 4A)
- Activities: Class lectures, warm-up problems, exit tickets, problem sets, Delta Math assignments, Blooket games, review activities, guizzes, and tests

### **Grading & Assignments**

#### Grading:

- Major Grades (Quizzes and Tests): 40%
- Minor Grades (Daily Assignments, Delta Math Assignments, ): 60%

#### Assignments:

- Homework will be assigned regularly and will typically be due within a few days.
  - It is important for students to do their assignments on time as this course builds on prior knowledge every single day!
- All assignments are intended to help students practice their skills or highlight connections between material we have learned or will be learning soon.

# **Supporting Your Students**

#### On a Regular Basis:

- Ask your student about what they learned in class
- Check in with them to make sure they've completed all their daily assignments
- Encourage them to try their best on all assignments and ask questions when they're stuck

#### • If Their Grade is Less Than Ideal:

- Encourage and provide opportunities for your student to attend tutoring. This
  could include weekly tutorials or Falcon Library (more info about both can be
  found in my Canvas course).
- Check Skyward to see what grades may be lower or missing, and encourage your child to check in to see what can be done about them
- Make sure that any major grades (tests or quizzes) have been corrected and that corrections have been submitted on time
- Encourage your student to work through additional problems within their notes pages. I try to post fully-worked solutions to all note practice problems by the end of the day in Canvas.

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

Sincerely, Ms. Jauregui