**Snake River High School**

**Class: Pre Calculus A**

**Course Description –The student’s will study Prerequisites for Pre Calc, Functions and Graphs, & Polynomials, Power and Rational Functions. The emphasis will be on Analyzing Graphs.**

**Textbook-** **Precalculus- Graphical, Numerical, Algebraic by Pearson**

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| **Chapter P** | **Prerequisites for Pre Calc** |
| P-1 | Be able to identify the Number Sets, Work with Exponents and learn Interval Notation. |
| P-2 | Be able to Work with the Cartesian Coordinate System, Absolute Values, Distance, Midpoint and Equations of Circles. |
| P-3 | Be able to work with Linear Equations and Inequalities. |
| P-4 | Be able to find Equations of Lines with a Point and a Slope and Two points. |
| P-5 | Be able to Solve Equations Graphically, Numerically, and Algebraically. |
| P-6 | Be able to Add, Subtract, Multiply, and Divide Complex Numbers. |
| P-7 | Be able to Solve Inequalities Algebraically and Graphically. |

Approximately 4 Weeks.

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| **Chapter 1** | **Functions and Graphs** |
| 1-1 | Be able to Model Numerically, Algebraically, and Graphically, and Solve Equations. |
| 1-2 | Be able to use the Properties of Functions to Analyze a Graph. |
| 1-3 | Become familiar with the 12 Basic Functions. |
| 1-4 | Be able to Add, Subtract, Multiply, Divide, and Compose Functions and Find Domains. |
| 1-5 | Be able to find Inverses and talk about their meaning. |
| 1-6 | Be able to move Graphs with the 8 basic shifts. |
| 1-7 | Be able to Model Story Problems with Functions. |

Approximately 4 Weeks.

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| **Chapter 2** | **Polynomials, Power, and Rational Functions** |
| 2-1 | Be able to Model Linear and Quadratic Functions. |
| 2-2 | Be able to Model with Power Functions. |
| 2-3 | Be able to Model with Polynomial Functions of Higher Degree. |
| 2-4 | Be able to find the Real Zeros of Polynomial Functions. |
| 2-5 | Be able to find Complex Zeros and use the Fundamental Theorem of Calculus. |
| 2-6 | Be able to Graph Rational Functions and Analyze Them. |
| 2-7 | Be able to Solve Equations in One Variable. |
| 2-8 | Be able to Solve Inequalities in One Variable. |

Approximately 4 Weeks.

**Grading Breakdown:**

Homework- 20% Retakes will be given according to the retake policy

Tests- 70% which was designed by the leadership team.

Final Test- 10%