

**Syllabus--Pre-Calculus Procedures:**

**Mr. Frossard Room C-14**

**Contact: [Chris.Frossard@nebo.edu](mailto:Chris.Frossard@nebo.edu)**

**Website: <https://sites.google.com/a/nebo.edu/mrfrossardmath/>**

**Remember: Excellent Attendance and Hard Work are critical for success in Math.**

This is a more advanced course than Math 3 or College Prep Math and is used to prepare students for many advanced college degrees and courses including Calculus and Statistics. This course is a challenging math course and students will be expected to work much harder to complete in-depth mathematical problem solving. Students should strive to do as much of their assignments on their own in order to prepare for tests that will follow. Yet, when a student gets stuck a study partner or teacher can help more quickly. The instructor is available for help before and after school and there will be a math lab available as well. Students should have at least received a B grade or better each term in Math 3 to be prepared for Pre-Calculus; otherwise, the College Prep Math class should be considered first instead. Students who received C, D, or F grades during Math 3 are not prepared to take Pre-Calculus. Pre-Calculus covers material in Advanced College Algebra, Statistics, and Trigonometry. You are expected to know and do basic algebraic and arithmetic operations to solve problems. **A scientific calculator is required for the high school class, but is not allowed on parts of some tests.** A graphing calculator may be used at times, but will be restricted on some testing to ensure understanding. *A graphing calculator is not required.*

**SHS Grade Scale:**

<b>A</b>	<b>94-100</b>	<b>C</b>	<b>73-76</b>
<b>A-</b>	<b>90-93</b>	<b>C-</b>	<b>70-72</b>
<b>B+</b>	<b>87-89</b>	<b>D+</b>	<b>66-69</b>
<b>B</b>	<b>83-86</b>	<b>D</b>	<b>61-65</b>
<b>B-</b>	<b>80-82</b>	<b>D-</b>	<b>55-60</b>
<b>C+</b>	<b>77-79</b>	<b>F</b>	<b>0-54</b>

Students are expected to treat others with respect and dignity. Students must not interfere with the learning process by disrupting instruction. Students should involve themselves in the mathematical discussion occurring in class. Questions about what we are learning is encouraged. Students are expected to take care of school property and adhere to all classroom, Springville High School, and Nebo School District rules and policies (read your student handbook for details). Students are expected to come to class properly dressed and groomed. The Anti-drug, tobacco and alcohol policies will be enforced.

Food, drinks (except water in a clear bottle with a cap for hydration only), hats, bandanas, radios, mini-TV's, toys, video games, cell phones, PDA's, pagers, I-Pods, I-Pads or any other similar distraction are **not** allowed in the classroom. These items will be confiscated if used in the classroom. If you have them, then don't bring them out at any time during the **entire class period**.

**Parents: If you need to get your child out of class during school hours, then please contact the main office at SHS at 801-489-2870. The office will then call for them. I cannot release them to you at the classroom. It must be done through the main office. Please realize that texting or e-mailing your child during class time is disruptive to the educational process. In my class students are expected to put their cell phone away for the whole class period. Please help your son/daughter focus their attention on the difficult mathematics that requires their full attention. Cell phones being used during class will be confiscated. Thank you.**

**Daily Assignments 20%** Assignments may be book-work, labs or projects. Assignments will be checked at the beginning of class. Students not in class to check their assignments must check their assignments before or after school only. Assignments are considered late if the student was in class for the assignment's instruction, but fails to bring the assignment to class to check it at the beginning of the class. No credit is given on any day where a student has a sluff or unexcused absence marked. Once a section of notes are completed, then students will have until the start of the next class period to have their assignment ready for "on-time" points. Once the folders are collected the assignment is considered "late." **Late work receives only 50% of the score the student gets after checking the assignment before or after school.** Students who are "on-time" to class and check their assignment "on-time" will receive a "1 point" bonus point. I expect great work with detail and neatness. **Reasonable work must be shown on multi-step problems for credit.**

**Checking assignments:** Assignments are checked in class the class day following the end of the section covered in class. **Three scores are required** on the top of any assignment: **Raw score** out of total answers (total answers will be given to you), **decimal score** rounded to the nearest thousandth, and the **score out of ten** points. Assignments should have the students name, period and assignment number on them.

**Make-up work** on assignments from an excused absence must be checked before or after school and turned in within one week (**5 school days, in a row, including the day you return**) unless we are at the end of a term. At that time the make-up time would be shorter. If you are absent, then get the information on the assignment as soon as possible. Late work receives only 50% of the original value.

**Notes 20%**

Due in class at the beginning, in the folders, on the day the student takes the chapter test. All information, problems and steps shown on the overhead screen are required on notes for full credit and must be written as shown in notes.

Late notes receive a 25% deduction the first two calendar school days late (the first day begins after notes are collected in class) and a 50% deduction up to two weeks late.

**Tests and Quizzes 50%.**

Quizzes are always announced in the class before they are given, so check. Tests may be taken only once. Therefore, **students must be ready for their tests.** Tests missed due to excused absences may be made up by the test deadlines written on the white board. It is your responsibility to check these dates even if you are absent from class. Make-up tests are not necessarily the same test given in class to the other students. The final test will count as a test score each term. 5 bonus points are awarded to any student's test score if the test is taken in class on the test day or taken before the test date. Tests taken after the class test is given will receive no bonus credit, but will still be able to receive full points. An unexcused absence or sluff on a test day will result in a zero for the test score. Make-up tests must be done before or after school. No detention credit may be earned for making up a test. Tests taken after school must begin by 2:40 p.m. Students can make-up tests after school on T,W,Th, or F. Monday is collaboration this year.

**Attendance 10%:** Tardiness and absences are detrimental to your math experience. The office will require detention for any infractions on attendance in order to make-up unexcused absences and tardies. The Nebo School District DAF (District Attendance Formula) will be used and Nebo School District and Springville High School policies will be administered. All unexcused absences or tardies must be cleared by 3pm on the last day of the term; otherwise, these will keep the student's grade lower.

I have read the above disclosure document.

Parent Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Student Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**PreCalculus Text: Prentice-Hall/Sullivan, PreCalculus, 4<sup>th</sup> edition.**  
**Tentative Syllabus and “I can...” statements:**

**Term 1**

**Chapter 1 Review Lines and Circles**

**Chapter 2 Functions I can...**

**Standard II Obj.2 and 3** 1) transform functions with vertical and horizontal shifts, dilations, and graph the basic family of functions.

2) graph piece-wise and step functions.

3) identify domain, range, average rate of change, continuity and discontinuity, end behavior, symmetry, limits, increasing, decreasing and use interval notations.

4) create models for real-life applications

**Chapter 3 Polynomials and Rational Functions**

**Standard II Obj. 1, 2 and 3**

**I can...**

1) solve polynomial problems with factoring, finding real and imaginary zeros.

2) find x- and y- intercepts.

3) write equations with given solutions.

4) create models using real-life applications.

**Term 2**

**Chapter 4 Exponential and Logarithmic Functions**

**Standard II Obj. 2 and 3**

**I can...**

1) analyze, solve and model situations that involve rational, exponential, and logarithmic functions.

2) find asymptotes, domain and range, end behavior, increasing and decreasing intervals, and continuity.

**Chapter 9 Analytic Geometry**

**Standard 2 Obj. 2**

**Standard 3 Obj. 2 and 3**

**I can...**

1) write conic sections in standard form, solve and graph both abstract and real-life applications.

2) solve conic sections involving circles, ellipses, parabolas, and hyperbolas by identifying vertices, lines of symmetry, foci, directrix, major and minor axes, and asymptotes where applicable.

3) define a curve parametrically and draw parametric graphs.

**Chapter 10 Systems of Equations and Matrices**

**Standard I Obj. 1**

**I can...**

1) represent real world applications to systems, matrices and then use mathematical operations and procedures to solve both.

2) demonstrate matrix addition, multiplication, subtraction, the associative and distributive properties while showing matrix multiplication is not commutative.

- 3) **find additive and multiplicative identities and inverses of matrices while solving equations with up to three variables using matrices.**

### **Term 3**

#### **Chapter 11 Sequences, Series, and the Binomial Theorem**

##### **Standard I Obj. 2 I can...**

- 1) **describe sequences of natural numbers, identify arithmetic and geometric sequences and series.**
- 2) **justify and discover the formulas for finite arithmetic series and finite and infinite geometric series while using various notations to describe sequences and series.**

#### **Chapter 12 Probability and Statistics**

##### **Standard IV Obj. 1 and 2**

##### **I can...**

- 1) **obtain samples spaces, probability distributions for simple discrete random variables.**
- 2) **compute means, variances, probabilities using areas under Normal Curves.**
- 3) **calculate parameters of sample distributions and probabilities in real-world problems.**
- 4) **find linear regressions and calculate standard deviations using technology while also calculating regression errors and making predictions.**

#### **Chapter 5 Trigonometric Functions**

##### **Standard III Obj. 1**

##### **I can...**

- 1) **define the unit circle and use it and the six trigonometric functions to solve right triangle situations.**
- 2) **use the Pythagorean Theorem.**
- 3) **identify the period and amplitude of trigonometric functions.**
- 4) **perform transformations of trig. Functions and then apply these to real-life applications.**

### **Term 4**

#### **Chapter 6 Analytic Trigonometry**

##### **Standard III Obj. 1**

##### **I can...**

- 1) **use the trigonometric identities, solve trigonometric equations, solve for angles using trigonometric inverses.**

#### **Chapter 7 Applications of Trigonometry**

##### **Standard III Obj. 1**

##### **I can...**

- 1) **Use the Law of Sines, and the Law of Cosines to solve trigonometric and applied mathematics problems.**
- 2) **solve higher level trigonometric problems and model real-life applications.**

**Chapter 8 Polar Coordinates**  
**Standard III Obj. 2**

**I can...**

- 1) graph, define, and use polar coordinates and convert them from rectangular to polar forms and then reverse the process.**
- 2) use DeMoivre's Theorem for higher powers and also use the rational root theorem.**
- 3) I can use and analyze vectors.**

**Additional Topics: Limits and Derivatives**

**I RESERVE THE RIGHT TO BE FAIR.**

**THE EXTRA CREDIT IS ALREADY BUILT INTO THE DAILY WORK AND TESTING—SO TAKE ADVANTAGE OF IT EVERY DAY. THERE ARE NO EXTRA POINTS GIVEN AT THE END OF THE TERM—THAT IS TOO LATE.**

**I have read the above disclosure document.**

**Parent: \_\_\_\_\_ Date: \_\_\_\_\_**

**Student: \_\_\_\_\_ Date: \_\_\_\_\_**