Instructor: Ms. Leah Chenault
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Conference: 1st period
Class Website: https://sites.google.com/a/sundownisd.com/chenault-s-classes/

Course Description: This course covers the study of algebraic, polynomial, rational, exponential, logarithmic, and trigonometric functions. Topics in analytic geometry are covered.

Course Purpose: The purpose of the course is to acquaint the student with solutions to different mathematical problems, to meet the mathematics requirement for the core curriculum and to provide a basis for further study in mathematics. This course covers algebra, trigonometry, and analytic geometry.

Reference Textbook: *Precalculus*, Neal, Gustafson, Hughes. Cengage Learning.

Grading: Grades for each six weeks will be computed as follows:

Tests………………………………...	70%
Homework ………………………….	15%
Pop Quizzes…………………………	15%

Semester grades are computed as follows:

Average of the three six weeks……..	80%
Semester Exam……………………...	20%

Grading Scale: A 90-100
                         B 80-89
                         C 70-79
                         D 60-69
                         F 59 or below
        ****Note: Students must justify answers or show work on all problems to receive full credit.*

Semester Exams and Exemptions: Because this is a college course, you are required to take the semester exam.

Homework: Homework is due at the beginning of the next class period after it is assigned. If you have questions, you should come in either before school, after school or during tutorials. No re-dos are allowed since this is a college-level course.

Pop Quizzes: Pre-Calculus includes memorization of certain formulas, trig values and identities. These will be the topics on quizzes. You will not be allowed to use your notes/homework on the quiz. All quizzes will be cumulative. If you fail a quiz, you will have the opportunity to complete a make-up quiz for a maximum grade of 70. A morning date and time will be assigned for the make-up quiz and the make-up quiz must be completed before 7:30 tutorials.

Tests: Pre-Calculus is cumulative so success on one test will depend on how well you know not only the new material but also the material from previous tests. We will try to have two chapter tests every six weeks. However, due to time constraints, there may be a couple of six weeks where there is only one chapter test. You will have the opportunity to take an optional six weeks test at the end of each six weeks. The optional six weeks test will replace your lowest chapter test grade (if it is higher). The optional six weeks test will be given at 6:00 in the morning on one of the final days of the six weeks.

Attendance Policy: Four absences per semester are allowed but not recommended. Upon your fifth absence (except in cases of documented extreme circumstances as determined by the professor), you will be withdrawn from the course with a grade of X or F. You may also be withdrawn if, in the instructor's opinion, minimum course objectives cannot be met due to absences. If you are withdrawn because of absences, you are financially responsible for paying the course tuition and fees.

Tests Missed Because of an Absence: Because this is a college level class, there are no provisions for making up exams. Only under extreme circumstances (death in the family, serious illness etc) will make-up exams be given, and these circumstances must be documented. If you are going to miss an exam, the instructor should be notified in advance via email or in person. If you miss an exam for something other than a documented extreme circumstance, you will receive a zero for the exam. This zero can only be replaced with the optional exam given at the end of the six weeks.

Daily Work and Quizzes Missed Because of an Absence: If you have an unplanned absence (emergency, sickness etc), it is your responsibility to contact the instructor via email as soon as possible and to complete your make-up work/quiz by the next class period. If you have a planned absence (doctor's appointment, school extracurricular activity etc), it is your responsibility to get your make-up work before you leave. If you fail to do the above, you will receive a zero for the assignment/quiz.

Late work: This is a college class so late work is not accepted. If you do not turn in an assignment, you will receive a zero.

Early Work: If a student correctly completes and turns in his/her homework by 8:00 AM the school day after it is assigned, ten bonus points will be awarded on that assignment.

Notebook: Each student will turn in a two-pocket, three-ring notebook at the end of each six weeks. This notebook will include all assignments from the six weeks as well as all notes from the year. It will also include a table of contents and a copy of the syllabus. The notebook will count as two homework grades.

Notes: All class notes and bell work should be dated and kept in a three-subject spiral. This spiral should only contain your math notes and will be turned in with your notebook at the end of each six weeks.

Bell Work: A short assignment will be on the board each day when students arrive in class. The student is expected to begin working as soon as the tardy bell rings. We will spend approximately the first five minutes of class on the bell work. The student will write the assignment in his/her notes along with the date. This work will be checked when notebooks are turned in at the end of the six weeks.

Calculators: There will be times throughout the year when students will need a graphing calculator to complete an assignment. We have a limited number that are available for check out for the year. Your parent/guardian must sign a check out form before you will be allowed to check out the calculator. If you elect to check out a calculator for the year, you assume all responsibility for that calculator if it is damaged, lost or stolen while in your possession.

Grade Reports: You will receive a weekly grade report.

Tutorials: Mandatory tutorials for students in danger of failing will be conducted at 7:30 each morning. The 7:30 bell is the tardy bell if you are required to be in tutorials. If you are placed on the weekly tutorial list (whether it be because of your average, an incomplete or a TRT), you will be expected to complete that entire week's worth of tutorials.

Extra Tutoring: I will be in my room by at least 6:45 every morning (earlier if you need me to be) if you desire more help. I will also be around after school most days if that is a better time for you.

Materials: Students are expected to bring the following to class each day:
- Covered textbook
- Spiral notebook
- Notebook
- Pencil and pen
- Calculator
- Straight-edge notebook paper

Tardiness: A student is tardy if he/she is not in the classroom with all required materials when the tardy bell rings.

Academic Honesty: You are expected to uphold the ideas of academic honesty. All work that is graded must be your own. This policy applies to all work attempted in the course. If this policy is violated, the student will receive a zero for the assignment and will be dropped with an F. For more details on what is considered cheating, see the South Plains College catalog.

Class Rules:
- Be courteous and respectful at all times.
- Be on time and ready to learn.
- Keep your hands and feet to yourself.
- Use only pencil for all assignments.
- Wait to be dismissed before leaving class. The bell does not dismiss you!!
- No food or drinks in class other than bottled water.
- Students are not permitted to use electronic devices, other than a calculator, in class.
- Adhere to the requirements of the Student Code of Conduct.

Student Learning Outcomes/Competencies:
Upon completion of this course and receiving a passing grade, the student will be able to:
1. Demonstrate and apply knowledge of properties of functions.
2. Recognize and apply algebraic and transcendental functions and solve related equations.
3. Apply graphing techniques to algebraic and transcendental functions.
4. Compute the values of trigonometric functions for key angles in all quadrants of the unit circle measured in both degrees and radians.
5. Prove trigonometric identities.
6. Solve right and oblique triangles.

Core Objectives:
1. Communication Skills:
Effective development, interpretation, and expression of ideas through written, oral, and visual communication.
- Develop, interpret, and express ideas through written communication
- Develop, interpret, and express ideas through oral communication
- Develop, interpret, and express ideas through visual communication

2. Critical Thinking:
Creative thinking, innovation, inquiry, analysis, evaluation, and synthesis of information.
- Generate and communicate ideas by combining, changing, and reapplying existing information
- Gather and assess information relevant to a question
- Analyze, evaluate, and synthesize information

3. Empirical and Quantitative Competency Skills:
The manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

- Manipulate and analyze numerical data and arrive at an informed conclusion
- Manipulate and analyze observable facts and arrive at an informed conclusion

Tentative Calendar:

Week 1: Trigonometric Angles, Non-Acute Angles, Trigonometric Functions, Using a Calculator to Solve Right Triangles, Laws of Sines and Cosines, Triangle Applications

Week 2: Fundamental Trig Identities, Simplifying Identities (Symbolic Algebraic Manipulation), Verifying Identities, Sum and Difference, Double, and Half Identities , Power Reducing, Sum to Product and Product to Sum Identities

Week 3: Exam 1, Radian Applications, Graphs of Sine, Cosine, Tangent and Cotangent and Their Transformations,

Week 4: Trigonometric Equations, Polar Graphs and Equations, Vectors and Dot Product, Vector Applications

Week 5: Exam 2, Other Types of Equations, Inequalities, Functions, Domains, Characteristics of Functions, Transformations

Week 6: Composite Functions, Inverse Functions, Average Rate of Change and Difference Quotient, Linear Functions

Week 7: Quadratic Functions, Polynomial Functions, Roots of Polynomial Functions

Week 8: Binomial Expansion, Exam 3, Exponential Functions, Logarithmic Functions,

Week 9: Properties of Log Functions, Exponential and Logarithmic Equations

Week 10: Rational Functions, Equations and Inequalities, Partial Fractions

Week 11: Exam 4, Circles, Ellipses, Hyperbolas

Week 12: Parabolas (Conics), Systems of Equations, Exam 5

Week 13: Sequences and Series, Geometric and Arithmetic Sequences and Series

Week 14: Exam 6, Review for Semester Exam

Equal Opportunity: South Plains College strives to accommodate the individual needs of all students in order to enhance their opportunities for success in the context of a comprehensive community college setting. It is the policy of South Plains College to offer all educational and employment opportunities without regard to race, color, national origin, religion, gender, disability, or age.

Diversity Statement: In this class, the teacher will establish and support an environment that values and nurtures individual and group differences and encourages engagement and interaction. Understanding and respecting multiple experiences and perspectives will serve to challenge and stimulate all of us to learn about others, about the larger world and about ourselves. By promoting diversity and intellectual exchange, we will not only mirror society as it is, but also model society as it should and can be (per the SPC faculty handbook).

Disability Statement: Students with disabilities, including but not limited to physical, psychiatric, or learning disabilities, who wish to request accommodations in this class should notify the Special Services Office early in the semester so that the appropriate arrangements may be made. In accordance with federal law, a student requesting accommodations must provide acceptable documentation of his/her disability to the Special Services Coordinator. For more information, call or visit the Special Services Office in the Student Services Building, 894-9611 ext. 2529, 2530