<div align="center">

Dual Credit Precalculus – Mathematics 2312
Angelo State University
Course Syllabus
Spring 2022

</div>

Instructor: Laura Morris
Room: D-145
Conference: 5th period
Email: lmorris@burnetcisd.net
Tutorials:

> 7:30 – 8:00, T – F
> Advisory – M - F
> 3:45 – 4:15, M - Th
> Or by appointment

*** All rules and procedures outlined in the *Student Handbook* apply to this classroom, as well as the expectations and procedures that follow.

Contact Information:

Email is the best way to contact me for most needs. Information and announcements will be posted on Google Classroom. The textbook for this course will be accessible on Google Classroom.

Disclaimer

This syllabus is current and accurate as of its posting date however, it subject to change. For the most complete and up-to-date course information, see assignments and announcements on Google Classroom. Statements below were written for both in class instruction and online instruction. Class is online for some and face-to-face for others, all assignments will be accessible through Google Classroom. Exams will be given at a standard time determined by instructor with input from students. I will send out a questionnaire as to best time (hour) for testing – if a time does not satisfy all students, a second time will be chosen. Remote students will be required to complete the exam in one sitting and use the camera on your student issued Chromebook.

1st Period Google Classroom Code: **54wmbe**
7th Period Google Classroom Code: **ssuehnx**

Grades – homework and homework checks will be given during the semester, but the bulk of the grade will come from exams

Computer/calculator/Cell Phone Use

You will need to have a computer/laptop or desktop available for use on exams. A camera needs to be available (there is a camera on your Chromebook) when taking exams. Calculators are not available to all students, so their use is limited. We will likely use the TI84 that is available on your Chromebook. Cell phones are not allowed in class or at home while taking tests for this course. You will be submitting some assignments and tests online. Make sure you can scan or take photos of documents when necessary. Please let me know as soon as you have issues so they can be resolved!

Homework

It is strongly suggested that you attempt every problem assigned for homework. This will help you learn the material and prepare you for exams, and future courses. I may choose several problems to grade instead of the entire homework assignment.

Attendance

Attendance is essential to learning new material. For online class, attendance equates to making sure that you review/study/ learn material on notes (engaging with the course every other school day). Take exams on time. If there is a deadline, do not wait till the last moment (midnight).

Those of you willing to study will find that the notes and homework will provide the best learning tool. Make use of them and the online textbook available to you. Make use of online and in-class office hours – ask questions, become comfortable – if you are not comfortable in a group setting, ask for individual time with instructor and/or teaching assistant.

Semester Letter Grade

A semester average will be computed based on quiz average, take-home exams (average), and from in class exams. An in-person explanation of the grading process will be given on first day in class. Grade will come from exams (70 %) & HW (30 %).

100 – 90 is an A, 80-89 is a B, 70-79 is a C, 60 – 69 is a D, any average below 60 is an F.

Student Learning Outcomes

1. **The students will demonstrate an understanding of factual knowledge including the mathematical notation and terminology used in this course.** Students will read, interpret, and use the vocabulary, symbolism, and basic definitions used in precalculus pertaining to the real numbers; exponents and radicals; polynomials, factoring, and rational expressions; equations and inequalities; functions; polynomial and rational functions; inverse functions; exponential and logarithmic functions; graphs and their transformations; six trigonometric functions; types of angle measure and notation; parts of triangles and circles; parabolas, ellipses, and hyperbolas; asymptotes; and vectors.

2. **The students will describe the fundamental principles including the mathematical rules and theorems arising from the concepts covered in this course.** Students will identify and apply the laws and formulas that result directly from the definitions; for example, rules of exponents, exponential and logarithmic properties, the quadratic formula, slope and formulas for the equations of lines, the fundamental trigonometric identities, properties of angles and triangles, characteristics of the trigonometric functions and inverse trigonometric functions, formulas of the conic sections, translation of axes, and formulas relating polar and rectangular coordinates.

3. **The students will apply course material using techniques and procedures covered in this course to solve problems.** Students will utilize the facts, formulas, and the techniques learned in this course to simplify algebraic expressions; graph functions; solve equations; prove trigonometric identities; solve trigonometric equations; solve various types of triangle problems; and recognize and graph trigonometric and inverse trigonometric functions, conic sections, algebraic curves, polar equations, and parametric equations.

4. **The students will develop specific skills, competencies, and thought processes sufficient to support further study or work in this field or related fields.** Students will acquire a level of proficiency in the fundamental concepts and applications in precalculus necessary for success in calculus.

Course Content

Textbook: Precalculus – Open**Stax;** Senior contributing author: Jay Abramson, Arizona State University. The following chapters including the particular sections listed are covered.

Topics from Algebra: Exponents and Radicals; Algebraic Expressions; Equations; Inequalities.
1. **Functions**: Review Fractions; Composition of Functions

3. **Polynomial and Rational Functions:** Complex Numbers; Quadratic Functions; Power Functions and Polynomial Functions; Graphs of Functions; Zeros of Polynomial Functions; Rational Functions; Inverses and Radical Functions; Modeling Functions.

4. **Inverse, Exponential, and Logarithmic Functions:** Inverse Functions; Exponential Functions and their Graphs; The Natural Exponential Function; Logarithmic Functions; Properties of Logarithms; Exponential and Logarithmic Equations; exponential and Logarithmic Models.

9. **Systems of equations and Inequalities:** Systems of Non-Linear Equations and Inequalities; Partial Fractions; Cramer's Rule

10. **Analytic Geometry:** Parabolas; Ellipses; Hyperbolas; Plane Curves and Parametric Equations.

11. **Sequences, Probability and Counting Theory:** Sequences and their notations; Arithmetic sequences; geometric sequences; Series and their notations; Counting Principles; Binomial Theorem; Probability

12. **Introduction to Calculus**: Finding Limits: Numerical and graphical approaches; Finding Limits: Properties of Limits; Continuity; Derivatives

==Grade Calculation:==

Daily Grades – 30%

Exam Grades – 70%

Daily Grades * 0.3 + Exam Grades * 0.7 = Semester Average

Semester Average * 0.8 + Final Exam * 0.2 = ASU Semester Grade

Assignments are expected to be completed by the due date. A student must arrange **IN ADVANCE** with Mrs. Morris if an assignment will be late.

If your accommodations require extra time for assignments and/or tests, please talk to me within the 1st two weeks of class so we can come to an agreed upon arrangement for your accommodations.

Student Responsibilities The student is solely responsible for:
• Completing each assignment by the specified due date.
• Obtaining assignments and other materials for classes from which they are absent.

• Utilizing, as needed, all available study-aid options (including meeting with the instructor, referring to outside texts, etc.) to resolve any questions that they might have regarding homework, course material, etc.
• Realizing from the beginning of the course the grade that they may need or want to graduate, maintain a scholarship, stay in athletics, etc. … and give as much effort as it takes to obtain this grade.

Academic honesty: Academic misconduct includes cheating, plagiarism, collusion, falsifying academic records, misrepresenting facts, violations of published professional ethics/standards, and any act or attempted act designed to give unfair academic advantage to oneself or another student. See the Angelo State University Student Handbook, Part II B:
https://www.angelo.edu/student-handbook/community-policies/academic-integrity.php

Plagiarism

Plagiarism is a serious topic covered in ASU's Academic Integrity policy in the Student Handbook. Plagiarism is the action or practice of taking someone else's work, idea, etc., and passing it off as one's own. Plagiarism is literary theft. In your discussions and/or your papers, it is unacceptable to copy word-for-word without quotation marks and the source of the quotation. It is expected that you will summarize or paraphrase ideas giving appropriate credit to the source both in the body of your paper and the reference list. Papers are subject to be evaluated for originality via Turnitin. Resources to help you understand this policy better are available at the ASU Writing Center.

Copyright Policy

Students officially enrolled in this course should make only one printed copy of the given articles and/or chapters. You are expressly prohibited from distributing or reproducing any portion of course readings in printed or electronic form without written permission from the copyright holders or publishers.

Student Disability Services

ASU is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments of 2008 (ADAAA), and subsequent legislation.

The Office of Student Affairs is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability, and it is the student's responsibility to initiate such a request by contacting Ms. Dallas Swafford, Director of Student Disability Services; Dallas.swafford@angelo.edu

Title IX

Angelo State University is committed to providing and strengthening an educational, working, and living environment where students, faculty, staff, and visitors are free from sex

discrimination of any kind. In accordance with Title VII, Title IX, the Violence Against Women Act (VAWA), the Campus Sexual Violence Elimination Act (SaVE), and other federal and state laws, the University prohibits discrimination based on sex, which includes pregnancy, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination and unwelcome behavior of a sexual nature. The term includes sexual harassment, nonconsensual sexual contact, nonconsensual sexual intercourse, sexual assault, sexual exploitation, stalking, public indecency, interpersonal violence (domestic violence or dating violence), sexual violence, and any other misconduct based on sex.

You are encouraged to report any incidents involving sexual misconduct to the Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator, Michelle Boone, J.D. You may submit reports in the following manner:
- Online: www.angelo.edu/incident-form
- Face to Face: Mayer Administration Building, Room 210
- Phone: 325-942-2022
- Email: michelle.boone@angelo.edu

You may also file a report online 24/7 at www.angelo.edu/incident-form.
michelle.boone@angelo.edu

Observance of Religious Holy Days: http://www.angelo.edu/content/files/14206-op-1019-student-absence-for-observance-of
Grading Procedures: http://www.angelo.edu/content/files/14197-op-1011-grading-procedures
Academic Integrity: http://www.angelo.edu/student-handbook/community-policies/academic-integrity.php
ASU Writing Center: http://www.angelo.edu/dept/writing_center/academic_honesty.php
Student Handbook: http://www.angelo.edu/student-handbook/
University Catalog: http://www.angelo.edu/catalogs/