Math 2412 (Precalculus)
Syllabus – 2021-2022 School Year

Instructor Information:

Instructor: Mrs. Donna Taylor               Fax: (325) 653-0551
            Room: HS Math                     Email: donna.taylor@veribestisd.net
Phone: (325) 655-2851
Conference Hours: Mon – Thurs 11:35 – 12:20

Course Information


Math Tutorials: Help with the course work is available:
               Monday – Friday: 8:44 – 9:04

Credit: 4 semester hours—Students should spend an average of 10 hours each week outside of class working on this course.

Attendance: You are expected to attend all scheduled class meetings, arrive on time, and stay for the entire class period. Class attendance is crucial in this course. Please do not make tardiness a habit.

Grading Policy:

Grading Scale: A 100 - 90%
               B 89 – 80%
               C 79 – 70%
               D 69 – 60%
               F Below 60%

Homework and Quizzes Policy

No late homework will be accepted. Homework assignments will be completed using pencil and paper. Homework is designed to help you prepare for exams. Your work from the homework assignments should be brought to tutorials to seek clarification on any problems you are not understanding. Quizzes may be given in class. There will be no make-up quizzes. At times, a quiz may be given as a take-home quiz. Adequate work must be shown on all quizzes and homework. The lowest 12 grades will be dropped at the end of the year when determining the homework average.
Exams
There will be approximately 10 exams which will account for 80% of your final grade. An optional semester exam will be given at the end of the first semester. The grade will replace the lowest exam previously taken. An optional final exam will be given at the end of the year. The grade will replace the lowest exam taken during the second semester. All exams will be pencil and paper exams. No calculators will be allowed unless otherwise instructed.

Attendance
Attendance will be taken every class day. Please inform me of any absences prior to the absence whenever possible.

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 and giving as much effort as it takes to obtain this grade.

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:

Dallas Swafford
Director of Student Disability Services
Office of Student Affairs
325-942-2047
dallas.swafford@angelo.edu
Title IX at Angelo State University

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. Sex discrimination, sexual misconduct, public indecency, interpersonal violence, sexual assault, sexual exploitation, sexual harassment, and stalking are not tolerated at ASU. As a faculty member, I am a Responsible Employee meaning that I will report any allegations I am notified of to the Office of Title IX Compliance in order to connect students with resources and options in addressing the allegations reported. You are encouraged to report any incidents to ASU’s Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator. You may do so by contacting:

Michelle Boone
Director of Title IX Compliance/Title IX Coordinator
Mayer Administration Building, Room 200
325-942-2022
michelle.boone@angelo.edu

You may also file a report online 24/7.

If you are wishing to speak to someone about an incident in confidence you may contact the University Health Clinic and Counseling Center at 325-942-2173 or the ASU Crisis Helpline at 325-486-6345. The Office of Title IX Compliance also provides accommodations related to pregnancy (such as communicating with your professors regarding medically necessary absences, modifications required because of pregnancy, etc.). If you are pregnant and need assistance or accommodations, please contact the Office of Title IX Compliance utilizing the information above.

For more information about Title IX in general you may visit the Title IX website.

Student Absence for Observance of Religious Holy Days

A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. See ASU Operating Policy 10.19 Student Absence for Observance of Religious Holy Day for more information.

Incomplete Grade Policy

It is policy that incomplete grades be reserved for student illness or personal misfortune. Please contact faculty if you have serious illness or a personal misfortune that would keep you from completing course work. Documentation may be required. See ASU Operating Policy 10.11 Grading Procedures for more information.
Student Conduct Policies

Academic Integrity

Students are expected to maintain complete honesty and integrity in all work. Any student found guilty of any form of dishonesty in academic work is subject of disciplinary action and possible expulsion from ASU. The College of Science and Engineering adheres to the Statement of Academic Integrity.

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.

General Policies Related to this Course

- All students are required to follow the policies and procedures presented in these documents:
  - Angelo State University Student Handbook
  - Angelo State University Catalog

- In the event that the university is closed for a scheduled class time, whatever was scheduled for that day and/or whatever was due that day will be scheduled and/or due on the next scheduled class time.

- All electronic correspondence will be sent to your ASU e-mail account unless other arrangements are made.

- Feel free to come by my office at any time for help. I will definitely be near my office during my office hours (or there will be a note telling you when I will be back). If my office hours are not convenient for you, meet with me to arrange for another time that is more convenient.

- Good luck. I sincerely hope you do well in this course, and I strongly encourage you to use me as a resource outside of class to help you succeed.
All items contained in this syllabus are subject to change as the year progresses. Students will be notified in advance of any changes.

Mathematics 2412 – Precalculus

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


1. Topics from Algebra: Exponents and Radicals; Algebraic Expressions; Equations; Inequalities.

2. Graphs and Functions: Rectangular Coordinate Systems; Graphs of Equations; Lines; Definition of Function; Graphs of Functions; Quadratic Functions; Operations on Functions.
3. **Polynomials and Rational Functions:** Polynomial Functions of Degree Greater Than 2; Rational Functions.

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

5. **The Trigonometric Functions:** Angles; Trigonometric Functions of Angles; Trigonometric Functions of Real Numbers; Values of the Trigonometric Functions; Trigonometric Graphs; Additional Trigonometric Graphs; Applied Problems.

6. **Analytic Trigonometry:** Trigonometric Equations; The Addition and Subtraction Formulas; Multiple-Angle Formulas; The Inverse Trigonometric Functions.

7. **Applications of Trigonometry:** The Law of Sines; The Law of Cosines; Vectors; The Dot Product.

10. **Topics from Analytic Geometry:** Parabolas; Ellipses; Hyperbolas; Plane Curves and Parametric Equations; Polar Coordinates.

### Proposed Course Schedule – Math 2412

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ii University Catalog: [http://www.angelo.edu/catalogs/](http://www.angelo.edu/catalogs/)