Math 2412 (Precalculus)

Syllabus – Spring 2019

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:** 7:55 – 8:15

**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:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
<th>Grading Scale</th>
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</thead>
<tbody>
<tr>
<td>Homework and Quizzes</td>
<td>30%</td>
<td>A 100 – 90%</td>
</tr>
<tr>
<td>Exams</td>
<td>50%</td>
<td>B 89 – 80%</td>
</tr>
<tr>
<td>Final Exam (Comprehensive)</td>
<td>20%</td>
<td>C 79 – 70%</td>
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<td>D 69 – 60%</td>
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<td>F Below 60%</td>
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**Homework and Quizzes:**

1. **No late homework will be accepted.** Homework assignments will be completed using pencil and paper. Homework is designed to help you prepare for the tests and final exam. Your work from the homework assignments should be brought to class to seek clarification on any problems you are not understanding.

2. Quizzes will be given in class on a regular basis. If you are absent or miss an in-class quiz, it is a zero. **There are 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.

3. The lowest six homework and quizzes will be dropped. This allows for unavoidable absences.
**Exams:**
We will have several exams and a comprehensive final exam. All exams will be pencil and paper exams. I will replace your lowest exam score with the final exam, if it will be beneficial for you. This will also allow for unavoidable absences. There will be no make-up exams unless arrangements are made with me prior to the exam.

**Drop Date:**
The last day to drop a course with a W or withdraw from the university is Friday, March 8, 2019.

**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.

While the course doesn’t contain a written component that needs to be checked via TurnItIn, students are expected to uphold the Academic Integrity Policy set forth by the university. Students should not seek outside resources to complete their work. Resources include but are not limited to: websites designed to work problems for you, another person, online sources, etc… At a minimum, students who are determined to have violated this policy will receive a failing grade on the assignment and may receive a failing grade for the course. The student may be referred to the Math Department Chair for possible further action.

In the event the assignment is a test and a 0 is earned, the final exam score will not be used to replace that score when calculating final grades.

**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
Course Requirements:
This course will require dedication, good work ethic, and patience. It is the responsibility of the student to seek help when needed, take good notes, and complete all assignments in order to be successful in this class. The material builds on itself, and the class is fast-paced. Please make every effort to not get behind.

University Policies:

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
Houston Harte University Center
dallas.swafford@angelo.edu

Title IX
Angelo State University is committed to the safety and security of all students. If you or someone you know experience sexual harassment, sexual assault, domestic or dating violence, stalking, or discrimination, you may contact ASU’s Title IX Coordinator:

Michelle Nicole Boone, J.D.
Director of Title IX Compliance
325-486-6357
Mayer Administration Building 204
michelle.boone@angelo.edu

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 OP 10.11 Grading Procedures for more information.)

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.
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


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.

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

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**Proposed Course Schedule – Math 2412**

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<tr>
<th>Date</th>
<th>Sections Covered</th>
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<tr>
<td><strong>Week 1</strong></td>
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<tr>
<td>Jan 14-18</td>
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<td><strong>Week 2</strong></td>
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<td>Jan 22-25</td>
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<td><strong>Week 3</strong></td>
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<td>Jan 28-Feb 1</td>
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<td><strong>Week 4</strong></td>
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<td>Feb 4-8</td>
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<td><strong>Week 5</strong></td>
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<td>Feb 11-15</td>
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| Week 6 | Feb 18-22 | Review (5.3 – 5.4)  
Test #4 (5.3 – 5.4)  
5.5 |
| Week 7 | Feb 25-Mar 1 | 5.6 / 5.7  
Review (5.6 – 5.7) |
| Week 8 | Mar 4-8 | Test #5 (Sections 5.6 – 5.7)  
6.2 / 6.3 |
| Week 9 | Mar 18-22 | Review (6.2 – 6.3)  
6.4 / 6.6 |
| Week 10 | Mar 25-29 | Test #6 (Sections 6.2, 6.3)  
7.1 / 7.2 |
| Week 11 | Apr 1 - 5 | Review (6.4, 6.6)  
Test #7 (6.4, 6.6)  
7.3 / 7.4 |
| Week 12 | Apr 8 - 12 | Review (7.1 – 7.4)  
Test #8 (7.1 – 7.4)  
10.1 / 10.2 |
| Week 13 | Apr 15-19 | 10.3 / 10.4  
Review (10.1 – 10.4) |
| Week 14 | Apr 22-26 | Test #9 (Sections 10.1 -10.4)  
10.5 / 10.6 |
| Week 15 | Apr 29-May 3 | Cumulative Review |
| Week 16 | May 6 - 10 | Final Exam |