Disclaimer
This syllabus is current and accurate as of its posting date, but will not be updated. For the most complete and up-to-date course information, contact the instructor.

Instructor
Juan Montemayor          Office:  MCS 219F          Phone #: 325-486-5438
email: juan.montemayor@angelo.edu

Notice
You are encouraged to be in attendance during each class meeting. No make-ups will be given for missed quizzes, homework assignments, or exams. If you leave early or come late to class, you may be counted absent for the day.

Cell Phone Use
Use of cell phone in class is strongly discouraged. Put phone away when entering classroom. You may be asked to leave the class if you are seen making use of your cell phone in any manner. In case you have a need for your phone – emergencies – let me know and an exception will be made for that case.

Office Hours:  MTWTh 3:00 – 5:30

Tentative Math Lab Hours:  12:00 PM – 5:00 PM MTWTh

Important Dates
Exams:  Tuesday July 24 ( Midterm ) and  Wednesday August 8 ( Final Exam )
Last Day to Withdraw from class:  July 30

Textbook
Precalculus: Functions and Graphs,
Homework will be done from textboook and/or handouts provided by instructor.
Instructor will use notes in class with the textbook used as an additional source of information and may also be used for selection of homework problems. Homework will come from notes and from textbook. Homework will not be done online.
Grading Periods
There will be two grading periods (each will count 50% of semester grade)
Each grading period will consist of two take-home exams, a daily grade average, and a mid semester in class exam. More will be said in class about the grading process.

Percentage
Daily grade is 14% of semester grade, 7% for each half of the semester.
Two take-home exams in each half of semester with each take-home worth 5% of semester grade. Each of the two in class exams, mid semester exam and final exam, count 33% of semester exam.

Daily Grade
You will be given daily grades during each half of the semester. The lowest two grades in each half of the semester will be dropped. The remaining daily grades will be averaged to give you a daily grade average for each half of the semester. Daily grade consists of a quiz, a homework assignment, attendance and class participation. More will be discussed on the first day of class.

Homework
A homework assignment is 30% of daily grade. Grading process will be discussed in class.
Homework cannot be turned in late but it can be turned in early or on time. No make-ups on missed assignments.

Quizzes
A quiz is worth 50% of the daily grade. You must be in class to get any credit on quiz. No make-ups on missed quizzes.

Attendance and Class Participation
Attendance is worth the remaining 20% of daily grade. You must be on time and not leave class early. Leaving the classroom for any reason may decrease your daily grade.

Semester Letter Grade
A semester average will be computed based on daily grades, take-home exams, and in class exams. An in-person explanation of the grading process will be given on first day in class.
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.

Use of calculators
You will not be allowed to use calculators in class when completing quizzes or exams. If work is done at home, you may use a calculator but you answer cannot be calculator based.
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; and asymptotes.

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; solve trigonometric equations; and recognize and graph trigonometric and inverse trigonometric functions, conic sections, and algebraic curves.

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

Subject Matter

1. **Topics from Algebra:** Exponents and Radicals, Algebraic Expressions, Inequalities.

2. **Graphs and Functions:** Rectangular Coordinate System, Graphs of Equations, Lines, Definition of Function, Graphs of 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

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

7. **Application of Trigonometry:** The Law of Sines; The Law of Cosines; Vectors; The Dot Product. This chapter will be discussed only when there is sufficient time.

**Tentative Schedule**

Please note that this schedule is subject to change on a daily basis and very likely will Check Blackboard for up-to-date information or ask in class.

<table>
<thead>
<tr>
<th>Day</th>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.1 Real numbers and properties (not on syl. 15-20 minutes – just a quick review), 1.2 Exponents and radicals plus intro to logarithms and golden ratio (rest of class)</td>
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<tr>
<td>2</td>
<td>1.3 Review of polynomials, operations and factoring polynomials rational expressions, complex fractions (A quick look at sections 1.4 and 1.5 –not part of syllabus)</td>
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<tr>
<td>3</td>
<td>1.6 Inequalities of all kinds 2.1 Rectangular coordinate system plus (distance formula, midpoints) maybe section 2.2</td>
</tr>
<tr>
<td>4</td>
<td>Take home Exam 1 2.2 Graphs of equations, circles and half-circles, 2.3 lines, and 2.4 functions</td>
</tr>
<tr>
<td>5</td>
<td>2.5 Graphs of functions 2.7 operations on functions plus if time permits Some of 2.6 (not on syl.)</td>
</tr>
<tr>
<td>6</td>
<td><strong>Catch up day / questions / start on section 3.1 – 3.1 will probably be tested on next exam</strong></td>
</tr>
<tr>
<td>7</td>
<td>Continue with chapter 3</td>
</tr>
<tr>
<td>8</td>
<td>Finish section 3.1 plus some other minor material from 3.2-3.3 (not on syllabus) Begin with section 3.5 rational functions</td>
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<tr>
<td>9</td>
<td>Finish Section 3.5 and Section 4.1 Inverse functions – take home test 2</td>
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<tr>
<td>10</td>
<td>Section 4.2 exponential functions, 4.3, and 4.5, 4.6</td>
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<tr>
<td>11</td>
<td>Finish chapter 4 and Begin with chapter 5 (sections 5.1 and 5.2) and/or Review</td>
</tr>
<tr>
<td>12</td>
<td><strong>Midterm–all material since beginning of semester – take home section of exam is also due on this day</strong></td>
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<tr>
<td>13</td>
<td>Finish with 5.1, 5.2, and 5.3</td>
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<tr>
<td>14</td>
<td>Sections 5.4 and 5.5</td>
</tr>
<tr>
<td>15</td>
<td>Sections 5.6 and sections 6.1 (not on syllabus) – take home test 3</td>
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<tr>
<td>16</td>
<td>Sections 6.3, 6.4, 6.6</td>
</tr>
<tr>
<td>17</td>
<td>Review and finish chapter 6 - Maybe begin chapter 10</td>
</tr>
<tr>
<td>18</td>
<td><strong>Catch up day</strong></td>
</tr>
<tr>
<td>19</td>
<td>Finish Chapter 6 and Begin with Chapter 10.1 and 10.2</td>
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<tr>
<td>20</td>
<td>Chapter 10.3, 10.4 – take home test 4</td>
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<tr>
<td>21</td>
<td>Chapter 10.5/catch up and review</td>
</tr>
<tr>
<td>22</td>
<td><strong>Final Exam – Take Home section is also due on this day</strong></td>
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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.

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
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 Boone  
Director of Title IX Compliance  
325-486-6357  
michelle.boone@angelo.edu

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. The full details can be found in ASU Operating Policy OP 10.19 Observance of Religious Holy Days.
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\textsuperscript{ii} 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\textsuperscript{iii}

**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\textsuperscript{iv}.

**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\textsuperscript{v}
  - Angelo State University Catalog\textsuperscript{vi}
• 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.

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