Fall 2017 Syllabus  
Math 2312.050  Precalculus  
MCS212 MWF@ 2:00-2:50PM

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:  MCS219F  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 or homework assignment. You will not be allowed to make-up any missed exam. It does not matter whether you have an excused or unexcused absence. If you are late to class or leave early, you may be counted absent for the day. Student must attend the entire period to be counted present. In the event that an exam is missed and a written excuse is given within a reasonable time that is acceptable to the instructor, the student will be given the option of taking a comprehensive final exam to replace missed exam. The comprehensive exam will count as the missed exam and the final exam. A second missed exam will be automatically entered as a zero.

Use of cell phone in class is strongly discouraged. You are encouraged to put cell phone away when entering classroom. If you have a cell phone out of your pocket/backpack/purse during class lecture or reach and touch into your pocket or purse, you will be considered as making use of cell phone. If such an event occurs, you will be asked to leave the classroom. Disruptions of class lecture will be dealt in the same manner. Personal situations may require you to have cell phone available in case of emergencies – notify instructor of that possibility. Other class rules will be discussed on the first day of class.

<table>
<thead>
<tr>
<th>Tentative Office Hours</th>
</tr>
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<tbody>
<tr>
<td><strong>Monday</strong></td>
</tr>
<tr>
<td>9:00 – 10:00 AM</td>
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<tr>
<td>12:30 – 1:00 PM</td>
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<tr>
<td>3:00 – 4:00 PM</td>
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</table>

Tentative exam dates:
- Exam 1 Sept. 20
- Exam 2 Oct. 11
- Exam 3 Oct. 16
- Midterm
- Exam 4 Nov. 6
- Exam 5 Dec. 1
- Exam 6(Final Exam) Monday Dec. 11 @3:30-5:30PM

Daily grades consisting of quizzes, homework, and class participation will be part of test grades. More discussion about this on first day of class.

There are six testing periods during the semester. A grade will be earned for each testing period and your semester grade will be obtained by averaging the grades earned for each of the six testing periods.

Last Day to Drop: Friday November 3

Holidays and Breaks
Monday Sept. 4 and Wednesday – Friday Nov. 22 – 24

Textbook

You will not need an access code to do online homework

<table>
<thead>
<tr>
<th>Math Lab Hours</th>
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<tbody>
<tr>
<td><strong>Monday – Thursday</strong></td>
</tr>
<tr>
<td>9:00am-8:00pm</td>
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Math Lab is located on the third floor of the library room C302
Prerequisite:
Mathematics 1314 with a grade of “C” or better, or a score of 26 or higher on the mathematics section of the ACT, or a score of 600 or higher on the mathematics section of the SAT if taken before March 2016, or a score of 620 or above on the mathematics section of the SAT if taken in March 2016 or after, or a sufficient score on a placement examination.

Exams
You will have a total of six exams given during the semester plus a final exam at the end of the semester. **It is up to the discretion of the instructor** whether final exam grade or midterm exam grade will replace a single missed exam. A second missed exam will be recorded as a grade of zero. Your midterm and final exams are comprehensive. Final Exam and Midterm Exam are comprehensive and not optional – all students must take them. Date and time for final exam is not negotiable. You have more than a fifteen-week notice of when the final exam is scheduled.

<table>
<thead>
<tr>
<th>You will have six testing periods, with each testing period worth 1/6 of your semester grade</th>
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</thead>
<tbody>
<tr>
<td>Each of the testing periods may (not the midterm and not the final exam) consist of</td>
</tr>
<tr>
<td>1) A <strong>major exam</strong> – makes up 88% of testing period grade</td>
</tr>
<tr>
<td>(midterm and final exam make up 100% of their corresponding testing period)</td>
</tr>
<tr>
<td>2) <strong>Daily grade</strong></td>
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<tr>
<td>Consists of a daily homework grade, a daily quiz grades, and class participation grade</td>
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<tr>
<td>12% of testing period grade (midterm and final exam do not have a daily grade)</td>
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**Major exams**
Use quizzes and chapter tests to study for major exams. No make-ups on exams.

**Daily grades**
Daily grades will be on an almost daily basis. There will be six grades per testing period. I will drop lowest and average the remaining five grades. This average will be your daily grade for the testing period.

**Each daily grade**
is made up of a daily homework grade, a daily quiz grade, and a grade for class participation

**Homework**
- 40% of daily grade

**Quiz**
- 40% of daily grade

**Class participation grade**
- 20% of daily grade

Class participation grade is left up to the discretion of the instructor but attendance and work in class are the major components of this part of grade

**Your semester average**
will be computed by averaging the six scores from each of the six testing periods.
Further explanation of grading procedure will be given on the first day of class.

<table>
<thead>
<tr>
<th>Last Day to Drop is Friday</th>
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<tbody>
<tr>
<td><strong>Final Exam</strong></td>
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<tr>
<td>November 3</td>
</tr>
<tr>
<td>Monday Dec. 11 @ 3:30 PM – 5:30 PM</td>
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More explanation on grading of homework, quizzes and class participation will be given in class.

**Standard Grading for this class**
An average of

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

1. You are encouraged to collaborate on your homework assignments with other classmates, but each student must turn in his or her own homework.

2. **Calculators are not allowed on quizzes or tests.**
   
   All answers must be non-calculator based – exact solutions are required.
   
   Algebraic work must be shown. No cell phones may be used at any time.

3. **See instructor for additional information** on course rules, assignments, and other procedures.

4. **Internet/Email:**
   
   I plan to post assignments and other documents on Blackboard and send you information via email.
   
   **All current students are required to maintain an @angelo.edu e-mail account** (see ASU Electronic Communication Policy [http://www.angelo.edu/services/technology/it_policies/ecomm_policy.html](http://www.angelo.edu/services/technology/it_policies/ecomm_policy.html)).

**Course Content**

An intensive overview of topics from algebra, trigonometry, and analytic geometry that are needed for calculus, including equations and inequalities, functions and inverse functions, trigonometric functions and equations, powers and roots of complex numbers, conic sections, parametric equations, polar coordinates, and applications. We will cover selected sections from Chapters 1, 2, 3, 4, 5, 6, 7 and 10.

Refer to the attached Student Learning Outcomes and Content sheet for additional information on the topics covered in this course.

**Mathematics 2312 – 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; 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


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

2. **Graphs and Functions:** Rectangular Coordinate Systems; 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:** 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.

**Tentative Schedule with tentative exam dates**
Please note that this schedule is subject to change on a daily basis; check Blackboard for up-to-date information.

<table>
<thead>
<tr>
<th>Week</th>
<th>Topics</th>
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<tbody>
<tr>
<td>1</td>
<td>Sections 1.2, 1.3, 1.4,</td>
</tr>
<tr>
<td>2</td>
<td>Sections 1.6, 2.1, 2.2,</td>
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<tr>
<td>3</td>
<td>Sections 2.3, 2.4, 2.5,</td>
</tr>
<tr>
<td>4</td>
<td>Sections 2.7 3.1, <strong>Exam 1</strong></td>
</tr>
<tr>
<td>5</td>
<td>Sections 3.5, 4.1, 4.2,</td>
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<tr>
<td>6</td>
<td>Sections 4.3, 4.4, 4.5,</td>
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<tr>
<td>7</td>
<td>Sections 4.6, 5.1, <strong>Exam 2</strong></td>
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<tr>
<td>8</td>
<td>Sections 5.2, 5.3, <em>(Exam 3 - midterm)</em></td>
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<tr>
<td>9</td>
<td>Sections 5.4, 5.5, 5.6,</td>
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<tr>
<td>10</td>
<td>Sections 5.7, 6.1, 6.2</td>
</tr>
<tr>
<td>11</td>
<td>Sections 6.2, 6.3, <em>(Exam 4)</em></td>
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<tr>
<td>12</td>
<td>Sections 6.4, 6.6, 7.1</td>
</tr>
<tr>
<td>13</td>
<td>Sections 7.2, 7.3, 7.4</td>
</tr>
<tr>
<td>14</td>
<td>Section 10.1, 10.2, <em>(Exam 5)</em></td>
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<tr>
<td>15</td>
<td>Sections 10.3, 10.5, 10.4</td>
</tr>
<tr>
<td>16</td>
<td><strong>Final Exam</strong></td>
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Syllabus Statements

- **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.  
  (http://www.angelo.edu/opmanual/ -- OP 10.19)

- **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 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.  
  (http://www.angelo.edu/opmanual/ -- OP 10.19)
• 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:
  o Angelo State University Student Handbook
  o Angelo State University Catalog

Academic Honor Code

Angelo State University expects its students to maintain complete honesty and integrity in their academic pursuits. Students are responsible for understanding the Academic Honor Code, which is available on the web at http://www.angelo.edu/forms/pdf/honorcode5.pdf.