

# Math 2312.M10 Summer II 2022

## Precalculus TWTh @ 10:00-11:05 AM



### Syllabus Statement:

PDFs posted in Blackboard for this course are intended for print purposes only. If you use assistive technology to complete your coursework, an alternative format may better meet your needs. Please contact your instructor to obtain an alternative format and to discuss appropriate software or other accommodations for the best student experience.

## Instructor: Juan Montemayor

Email: [juan.montemayor@angelo.edu](mailto:juan.montemayor@angelo.edu)

Phone: (325)486-5438 Office: MCS 219F

**Office Hours: to be discussed on first day of class (tentative hours listed below)**

M-F:

Office Hours for Summer II 2022				
<b>Monday</b> By appointment 9:45 – 10:00 11:05-12:35	<b>Tuesday</b> 9:45 – 10:00 AM 11:05 – 12:35 noon	<b>Wednesday</b> 9:30 – 10:00 AM 11:05 – 12:35 noon	<b>Thursday</b> 9:30 – 10:00 AM 11:05 – 12:35 noon	<b>Friday</b> By appointment 9:45 – 10:00 11:05-12:35

## Course Information

### Course Description – see course content at end of syllabus

We begin with a review of exponents, radicals, polynomials, and rational expressions. We will look at solving equations and inequalities, and construction and use of the rectangular coordinate system such as graphs of relations and functions; lines, parabolas, circles, and other figures.

We will spend a considerable amount of time discussing functions – see course content to see the different types of functions. We finish the course with a discussion of limits and some optional topics depending on time. Again – see course content

## Prerequisite Skills

You should have basic arithmetic skills that allow you to perform calculations with and without the use of a calculator. You should be able to follow written and oral/verbal instructions. Some basic use of computer technology. You should have above average knowledge of basic algebra. You should have an idea of real numbers and the different number sets that make up the set of real numbers as well as properties of real numbers. Some topics will be reviewed in class – including the use of distance formula – but you should know the distance formula.

## Other Prerequisite Skills

Be able to access Internet websites, use ASU Library resources as needed, and have some proficiency with Microsoft Word and the ability, curiosity, and desire to learn more. Be able to use Blackboard and able to learn how to submit documents in PDF format. Although we do not make as much use of the calculator as you would like, make sure you are able to use non-graphing calculators. If you do happen to have graphing calculators – use them to check your homework problems. Answers should be non-calculator based – calculators are not allowed on quizzes or exams. Become acquainted with Desmos graphing tool ( online ). Be able to follow directions such as how and where the math lab is located – same for your professor's office (all professors ). Understand the **instructor's definition of studying** – you do not study the day before an exam, you study throughout the semester.

## Student Learning Outcomes and Course Content

- 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; and graphs and their transformations.
- 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 Intermediate Value Theorem, and the limit laws.

- 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 quadratic and polynomial functions; graph rational functions; and solve 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:** OPTIONAL – NOT REQUIRED – INSTRUCTORS NOTES SHOULD BE SUFFICIENT

Precalculus: Mathematics for Calculus, 7th Edition, by Stewart, Redlin, and Watson.  
The following chapters including the particular sections listed are covered.

### **Chapter 1 Fundamentals:**

Exponents and Radicals; Algebraic Expressions; Rational Expressions; Equations; Inequalities; The Coordinate Plane; Graphs of Equations; Circles; Lines.

### **Chapter 2 Functions:**

Functions; Graphs of Functions; Getting Information from the Graph of a Function; Average Rate of Change; Linear Functions; Transformation of Functions; Combining Functions; One-to-one Functions and Their Inverse.

### **Chapter 3 Polynomials and Rational Functions:**

Quadratic Functions; Polynomial Functions; Dividing Polynomials; Rational Functions.

### **Chapter 4 Exponential, and Logarithmic Functions:**

Exponential Functions; The Natural Exponential Function; Logarithmic Functions; Laws of Logarithms; Exponential and Logarithmic Equations.

**Chapter 13 Limits:** A Preview of Calculus: Finding Limits Numerically and Graphically; Finding Limits Algebraically; Limits at Infinity.

### **Optional Topics:** (10.1)

Systems of Linear Equations in Two Variables; (10.2) Systems of Linear Equations in Several Variables; (10.7) Partial Fractions; (10.8) Systems of Nonlinear Equations; (10.9) Systems of Inequalities.

## Course Delivery

This is a face-to-face course with online components. Students are expected to have access to [Blackboard](#).<sup>1</sup> From time to time, the class lecture – including completed notes – may be recorded and published to make available to those unable to attend class. No guarantee of this happening or of the quality of the recording. Not being in class will be considered being absent from class.

Please refer to this [Health and Safety web page](#)<sup>2</sup> for updated information about campus guidelines as they relate to the COVID-19 pandemic.

## Technology Requirements

Answers must always be non-calculator based but you can use calculators for basic arithmetic operations and to check your homework – not to complete your homework. I normally do not allow laptops or phones in the classroom. Due to our current and possible future situation, I am allowing you to bring your laptops or phones for class purposes – not for social reasons. You may have to submit documents back to me (quizzes and tests) and that will require use of your phone. There may be a learning curve so do not panic (ASU IT services are available at 325-942-2911). Do not miss deadlines. All submitted documents must be submitted on time and as PDF documents. I am not using Top Hat but if you have other classes that use it and you have the knowledge to use it, then feel free to use it in this class.

## Communication

We do not keep the same working hours. Keep that in mind when you send an email at 2:00 AM. The instructor will try to respond to emails and/or telephone messages within 24 hours during working hours Monday through Friday. In the event you do not hear from me, please send me a second and even a third message. I will not be ignoring you but I may be swamped with information – information overload - and your email may have gotten lost in the pile. Weekend messages may not be returned until Monday.

**Written communication via email:** All private communication will be done exclusively through your ASU email address. Your other emails will be of no use for course work. Check frequently for announcements and policy changes – **daily**.

In your emails to faculty, include the course name and section number in your subject line and the main topic.

**Virtual communication:** Office hours and/or advising will be done in person or with the assistance of the telephone and/or Blackboard Collaborate.

Remember that you are sharing blackboard space with the entire class. Keep it official – as much as possible. Work group is encouraged – feel free to do join in, work together. Quizzes and Exams are to be completed as individual work.

Exams must be taken in class. You will not be allowed to take exams online. See instructor for additional information.

## Grading

### Evaluation and Grades

Course grades will be determined as indicated in the table below.

<b>Assessment</b>	<b>Percent of Total Grade</b>
Homework 10 assignments – No HW grade will be dropped - No late work will be accepted – late papers will not be graded and will be given a grade of zero – only one	12 %
Quizzes 25 short in-class quizzes – dropw lowest 5 ( or missed quiz ) – Must be in class to take quiz – no exception.	8 %
Exams Four regular exams plus a final exam No make – up on any missed exam Missed exam grade will be replaced with grade on final exam.	80 %
Total	100%

### Grading System

Course grades will be dependent upon completing course requirements and meeting the student learning outcomes.

The following grading scale is in use for this course:

A = 90.00-100 points

B = 80.00-89.99 points

C = 70.00-79.99 points

D = 60.00-69.99 points

F = 0-59.99 points (Grades are not rounded up)

Any other grade point average will be left up to instructor. No grade will be curved up.

## **Assignment and Activity Descriptions**

All assignments (Exams, quizzes, and homework) will be turned in as PDF documents unless indicated otherwise by instructor. Scan the document (this does not mean to take a picture – a picture may be part of the process – you are scanning), save the document in PDF format on your computer – or however your phone stores it, submit through blackboard as a PDF document (no other way). No late work will be accepted. There is no reason to miss an assignment and I will drop enough quizzes to account for missing grades ( or low scores ). HW assignments will be given in time and you will have access to help – no HW assignment will be dropped.

## **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](#)<sup>3</sup>
- [Angelo State University Catalog](#)<sup>4</sup>

## **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 university's [Statement of Academic Integrity](#).<sup>5</sup>

## **Accommodations for Students with Disabilities**

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.

Student Disability Services is located in the Office of Student Affairs, and is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability. It is the student's responsibility to initiate such a request by contacting an employee of the Office of Student Affairs, in the Houston Harte University Center, Room 112, or

contacting the department via email at [ADA@angelo.edu](mailto:ADA@angelo.edu). For more information about the application process and requirements, visit the [Student Disability Services website](#).<sup>6</sup> The employee charged with the responsibility of reviewing and authorizing accommodation requests is:

Dallas Swafford  
Director of Student Disability Services  
Office of Student Affairs  
325-942-2047  
[dallas.swafford@angelo.edu](mailto:dallas.swafford@angelo.edu)  
Houston Harte University Center, Room 112

## **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](#)<sup>7</sup> for more information.

## **Plagiarism**

Plagiarism is a serious topic covered in ASU's [Academic Integrity policy](#)<sup>8</sup> 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. With math assignments, it is possible that group work may generate similar work. Exams should be individual work. 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. This statement does not affect math work as much as work in other areas of study.

Papers are subject to be evaluated for originality. Resources to help you understand this policy better are available at the [ASU Writing Center](#).<sup>9</sup>

## **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](#)<sup>10</sup> for more information.

## **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. 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 Miller, J.D. You may submit reports in the following manner:

Online: [Incident Reporting Form](#)<sup>11</sup>

Face to Face: Mayer Administration Building, Room 210

Phone: 325-942-2022

Email: [michelle.miller@angelo.edu](mailto:michelle.miller@angelo.edu)

Note, as a faculty member at Angelo State, I am a mandatory reporter and must report incidents involving sexual misconduct to the Title IX Coordinator. Should you wish to speak to someone in confidence about an issue, you may contact the University Counseling Center (325-942-2371), the 24-Hour Crisis Helpline (325-486-6345), or the University Health Clinic (325-942-2171).

For more information about resources related to sexual misconduct, Title IX, or Angelo State's policy please visit the [Title IX website](#).<sup>12</sup>

## **Information About COVID-19**

Please refer to ASU's [COVID-19 \(Coronavirus\) Updates](#)<sup>13</sup> web page for current information about campus guidelines and safety standards as they relate to the COVID-19 pandemic.



# Modifications to the Syllabus

This syllabus, including grade evaluation and course schedule, is subject to modification. In particular, the COVID-19 pandemic may require significant changes in course delivery and content on potentially short notice.

## Course Schedule to be completed as the course progresses

- <sup>1</sup> <https://blackboard.angelo.edu/>
- <sup>2</sup> <https://www.angelo.edu/covid-19/returning-to-campus/health-and-safety.php>
- <sup>3</sup> <https://www.angelo.edu/student-handbook/>
- <sup>4</sup> <https://www.angelo.edu/catalogs/>
- <sup>5</sup> <https://www.angelo.edu/student-handbook/community-policies/academic-integrity.php>
- <sup>6</sup> <https://www.angelo.edu/services/disability-services/>
- <sup>7</sup> <https://www.angelo.edu/content/files/14197-op-1011-grading-procedures>
- <sup>8</sup> <https://www.angelo.edu/student-handbook/community-policies/academic-integrity.php>
- <sup>9</sup> [https://www.angelo.edu/dept/writing\\_center/academic\\_honesty.php](https://www.angelo.edu/dept/writing_center/academic_honesty.php)
- <sup>10</sup> <https://www.angelo.edu/content/files/14206-op-1019-student-absence-for-observance-of>
- <sup>11</sup> <https://www.angelo.edu/incident-form>
- <sup>12</sup> <https://www.angelo.edu/title-ix>
- <sup>13</sup> <https://www.angelo.edu/covid-19/>

<https://www.angelo.edu/covid-19/> of Academic Integrity is now on Page 97 in the Student Handbook, so use this link to get students to the right

page: <https://www.angelo.edu/live/files/27603-student-handbook-2020-21#page=97>

- The Academic Affairs office has started using new software to maintain all the university operating policies and procedures. Consequently, these policy links have changed:

- OP 10.11 Grading

procedures: <https://angelo.policystat.com/policy/10659448/latest/>

OP 10.19 Student Absence for Observance of Religious Holy

Day: <https://angelo.policystat.com/policy/10659368/latest/>