Math 2312.040
Precalculus Spring 2022

Instructor: Autumn Hoover

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Office: MCS 220M

Office Hours:
Monday, Wednesday: 9:00 – 10: 00, 11:00 – 12:00
Tuesday: 9:15 – 11:15; (2:00 – 4:00 standards testing in MCS 119)
Thursday: 9:15 – 11:15, 2:00 – 4:00
Friday: No scheduled hours, but I am usually here by 9:00 if you need me.
Feel free to come see during any of these times

Class meets every Tuesday and Thursday, in MCS 210 at 12:30 – 1:45.

Course Information

Course Description
Review of algebra, solving equations and inequalities, study of functions and inverse functions, and lines and planes in space.

Prerequisite
Satisfactory completion of Math 1314 (College Algebra) or a suitable score on a placement exam.

Student Learning Outcomes
Upon completion of this course, students will be able to:
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 functions; and solve equations and systems of 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: *Precalculus: Mathematics for Calculus*, 7th Edition, by Stewart, Redlin, and Watson. The following chapters including the particular sections listed are covered.
1. **Fundamentals:** Exponents and Radicals; Algebraic Expressions; Rational Expressions; Equations; Inequalities; The Coordinate Plane; Graphs of Equations; Circles; Lines.
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.
3. **Polynomials and Rational Functions:** Quadratic Functions; Polynomial Functions; Dividing Polynomials; Rational Functions.
4. **Exponential, and Logarithmic Functions:** Exponential Functions; The Natural Exponential Function; Logarithmic Functions; Laws of Logarithms; Exponential and Logarithmic Equations.
13. **Limits: A Preview of Calculus:** Finding Limits Numerically and Graphically; Finding Limits Algebraically; Limits at Infinity.

Course Delivery

This course will meet in person. If you are not able to attend class in person due to illness, quarantine, etc. you will either attend live remote sessions at the same time as our scheduled course or watch a recording of the lecture. You will also be expected to complete coursework via [Blackboard](.).[1]

Required Texts and Materials

Precalculus: Mathematics for Calculus, 7th Edition, by Stewart, Redlin, and Watson.

Technology Requirements
- You will also need a scanner (or a scanning app for your phone),
- a webcam and microphone. (Most laptops come equipped with both a webcam and microphone.) This would be used for virtual office hours if needed.
- You will need access to a printer. If you don't have your own, there are computer labs on campus for you to print your notes.

Communication
I usually respond to email and/or telephone messages within 24 hours during working hours Monday through Friday. Weekend messages may not be returned until Monday.

Written communication via email: All private communication will be done exclusively through your ASU email address. **Check frequently for announcements and policy changes**. In your emails to faculty, include the course name and section number in your subject line.

Virtual communication: Office hours and/or advising may be done with the assistance of the telephone, Collaborate, Skype, etc.

Grading

Exams

Tests/Final Exam: There will be three regular exams during the semester and a cumulative final exam. If you leave the room during an exam, I may take your test and grade it AS IS! The final exam may replace your lowest exam score if it is to your benefit. **The 3 regular exams will take place on Thursday evenings from 5:00 – 7:00 pm as noted below.** Exceptions to these evening exams will be made only for emergencies and will be evaluated on a case by case basis.
Test Dates:
- Test 1: Thursday, February 17th, 5:00 – 7:00 PM
- Test 2: Thursday, March 24th, 5:00 – 7:00 PM
- Test 3: Thursday, April 21st, 5:00 – 7:00 PM
- Test 4 (Final Exam): Thursday, May 12th   10:30 am – 12:30 pm

Standards
This section of Precalculus is utilizing a new approach aimed at improving pass rates and better preparing students for future math courses. It will include passing 5 standards of prerequisite material from College Algebra. While this material includes topics you mastered in College Algebra, some students still struggle with these topics.

These topics are essential in Precalculus and Calculus, therefore remediation may be necessary.

These "standards" will consist of 5 short "quizzes" each consisting of 6 questions. You must get at least 4 of the 6 questions correct on each standard to "pass" that standard. **You must pass all 5 standards in order to pass the class regardless of your overall grade in the course.** Grades on the standards will count 5% of your grade. You may take all 5 standards in a week, but you can only take each standard once per week. You can have up to 8 attempts to pass each standard. All 5 standards must be passed by week 8 of the semester(3/11/2022). All standards must be taken in person. No remote testing is allowed.

Passing a standard during weeks 1 or 2 will result in a grade of 100 on that standard.

Passing a standard during weeks 3 or 4 will result in a grade of 90 on that standard.

Passing a standard during weeks 5 or 6 will result in a grade of 80 on that standard.

Passing a standard during weeks 7 or 8 will result in a grade of 70 on that standard.

If you fail a standard, there are resources available to help you learn these topics and practice before attempting to retake a standard. I strongly encourage you to come to my office for one-on-one help. You will also have access to a free online textbook (Openstax), free online homework practice (My Open Math-MOM) with videos over each topic. The math lab located on the third floor of the library will also be able to provide assistance on preparing for these standards.

Standards will be administered every Tuesday 2:00 – 4:00, Wednesdays 3:00 – 4:00 and Thursday 3:00 - 5:00 (usually in MCS 119), and at other times by appointment. These appointments will be scheduled in Navigate. You can take more than one standard at a time if you so choose. Please indicate which standards you plan to take when you schedule them.

Evaluation and Grades

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

Assessment	Percent of Total Grade
Daily grades-HW (10%)	10%
Standards	5%
Tests 1 – 3 (20% each)	60%
Final Exam	25%
Total	100%

Grading System

Course grades will be dependent upon completing course requirements and students must also pass all 5 standards to pass the course. The following grading scale is in use for this course:

 A = 90.00-100   B = 80.00-89   C = 70.00-79   D = 60.00-69   F = 0-59

Attendance

Attendance will be taken daily. You are expected to attend all scheduled class meetings, arrive on time and stay for the entire class. You will be marked absent if you are more than 10 minutes late. I will count 3 tardies as an absence. Perfect attendance will give you 2 points added to your final course grade, 1-3 absences will get you 1 point. **If you are not physically present in class, you can email me a copy of your filled in notes before the next class period to get credit for attendance.**

The last day to drop a class is Thursday, April 28.

Assignment and Activity Descriptions

Homework will be assigned over every section. Daily work will consist of problems from the textbook. Problems can be found under the Homework Assignment tab in Bb. Homework is due at the BEGINNING of class. **I DO NOT ACCEPT LATE HOMEWORK.**

- **You will need to <u>scan</u> pictures of every page of your homework. Convert it to a pdf and upload it into blackboard under the appropriate date in the homework assignments tab. <mark>IT IS YOUR RESPONSIBILITY TO MAKE SURE THE UPLOAD IS SUCCESSFUL BEFORE IT IS DUE.</mark>**
- Answers will need to be put on an answer sheet which is available in the homework tab in blackboard. Fill in the first COLUMN first before moving to the second column. This should be your FIRST page uploaded with the work on the next pages.
- If you are going to miss class, you still need to upload the assignment into blackboard **before class starts** on the day the assignment is due. <u>No late assignments</u> will be accepted.
- If you need assistance with an assignment, see me for help **before** it is due.
- Homework assignments will be posted daily on blackboard, on the Homework assignment tab.
- I will drop 3 homework grades at the end of the semester to compensate for unavoidable circumstances.
- Write legibly. If your answer cannot be read, it is wrong. Show all necessary work.

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](#)[2]
- [Angelo State University Catalog](#)[3]

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](#).[4]

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. For more information about the application process and requirements, visit the [Student Disability Services website](#).[5] 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
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](#)[6] for more information.

Plagiarism

Plagiarism is a serious topic covered in ASU's [Academic Integrity statement](#)[7] 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. **THIS INCLUDES THINGS SUCH AS USING APPS LIKE PHOTOMATH.**

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. Resources to help you understand this policy better are available at the [ASU Writing Center](#).[8]

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](#)[9] for more information.

Title IX at Angelo State University

The University prohibits discrimination based on sex, which includes pregnancy, sexual orientation, gender identity, gender expression, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination including: sexual assault, sex-based discrimination, sexual exploitation, sexual harassment, public indecency, interpersonal violence (domestic violence and/or dating violence), and stalking. As a faculty member, I am a Responsible Employee meaning that I am obligated by law and ASU policy to report any allegations of sexual misconduct that I am notified of to the Office of Title IX Compliance.

Students are encouraged to report any incidents of sexual misconduct directly to ASU's Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator at:

Michelle Miller, J.D.

Special Assistant to the President and Title IX Coordinator
Mayer Administration Building, Room 210
325-942-2022
michelle.miller@angelo.edu

You may also file a report online 24/7 at www.angelo.edu/incident-form[10].
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.

For more information about Title IX in general you may visit the Title IX website.[11]

Information About COVID-19

Please refer to ASU's COVID-19 (Coronavirus) Updates[12] 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

Date	Topic or Module
1	Syllabus, Policies, Pretest
2	Standards
3	Standards Notes 1.2 – 1.5
4	Standards Notes 1.2 – 1.5
5	1.2 Exponents and Radicals
6	1.3 Algebraic Expressions
7	1.4 Rational Expressions
8	1.5 Equations
9	1.5 Equations, REVIEW
10	Review; Test 1 (Thur., 2/17, 5:00 pm) covering 1.2 – 1.5
11	1.8 Inequalities
12	1.9 Coordinate Plane, Graphs of Equations, Circles; 1.10 Lines
13	1.10 Lines; 2.1 Functions
14	2.1 Functions; 2.2 Graphs of Functions; 2.3 Information from Graphs

15	2.4 Average Rate of Change of a Function; 2.5 Linear Functions and Models
16	2.6 Transformations of Functions
17	REVIEW
18	2.6 Transformations of Functions <mark>Test 2 (Thurs. 3/24 5:00 – 7:00 PM) covering 1.8 – 2.5</mark>
19	2.7 Combining Functions; 2.8 One to One Functions and their Inverses
20	2.8 One to One Functions and their Inverses; 3.1 Quadratic Functions
21	3.2 Polynomial Functions and Graphs; 3.3 Dividing Poly
22	3.6 Rational Functions
23	3.6 Rational Functions; 13.1 Finding Limits Numerically and Graphically
24	13.2 Finding Limits Algebraically; 13.4 Limits at Infinity
25	REVIEW
26	4.1 Exponential Functions; 4.2 Natural Exponential Function <mark>Test 3,Thurs. 4/21 5:00 – 7:00 PM covering 2.6 – 13.2?</mark>
27	4.3 Logarithmic Functions; 4.4 Laws of Logs
28	4.5 Exponential and Logarithmic Equations
29	REVIEW
30	REVIEW
31	<mark>Final Exam Thursday, May 12 at 10:30 -12:30</mark>

[1] https://angelo.blackboard.com/

[2] https://www.angelo.edu/current-students/student-handbook/

[3] https://www.angelo.edu/academics/catalog/

[4] https://www.angelo.edu/live/files/27603-student-handbook-2020-21 - page=97

[5] https://www.angelo.edu/current-students/disability-services/

[6] https://www.angelo.edu/content/files/14197-op-1011-grading-procedures

[7] https://www.angelo.edu/live/files/27603-student-handbook-2020-21 - page=97

[8] https://www.angelo.edu/current-students/writing-center/academic_honesty.php

[9] https://angelo.policystat.com/policy/token_access/2d2f24d9-0983-4c91-9b43-82e8ccf913b1/

[10] http://www.angelo.edu/incident-form

[11] https://www.angelo.edu/title-ix

[12] https://www.angelo.edu/covid-19/