MATH 2312-020
Precalculus

Instructor: Ashlee Fuchs
Email: ashlee.fuchs@angelo.edu
Phone: 325-486-5433
Office: MCS 220E

Office Hours:
Monday: 9:00am-9:50am; 12:30pm-1:15pm; 2:00pm-2:45pm
Tuesday: 2:00pm-2:45pm
Wednesday: 9:00am-9:50am; 12:30pm-2:45pm
Thursday: 2:00pm-2:45pm
Friday: 9:00am-9:50am; 12:30pm-2:45pm

All office hours will be held virtually using Blackboard Collaborate.
Appointments will be made using Navigate.
Information on setting up appointments will be sent via e-mail and posted in Blackboard.

Course Information

Prerequisite
MATH 1314

Student Expectations
- Maintain academic honesty.
- Complete each assignment by the specified due date.
- Be a positive influence in classroom learning environment by being courteous and respectful to everyone in class. This includes virtual office hours and written communication.
- It is your responsibility to put in as much effort as it takes to earn your desired grade. This includes utilizing (as needed) all available study aid options (attending virtual office hours and/or getting help from the Math Lab, emailing the instructor, etc.) to resolve any questions or concerns you might have about any aspect of the course.
Student Learning Outcomes

- 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.

- 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.

- 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.

- 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.
10. **Systems of Equations and Inequalities:** Systems of Linear Equations in Two Variables; Systems of Linear Equations in Several Variables; Partial Fractions; Systems of Nonlinear Equations; Systems of Inequalities.

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

**Course Delivery**
This is a face-to-face course. We will meet in person. If you are absent for ANY reason, you will be expected to watch a recording of the lecture and complete coursework via Blackboard. Assignments will be submitted in Gradescope.

**Attendance**
Attendance will make up 5% of your overall course grade.
- If you are in class and actively participating, you will receive a 100 for a daily grade after uploading a screenshot of your Daily Wellness Screening to Gradescope.
- If you are absent (not physically present) then you will receive a 0 for a daily grade.
- To be counted virtually present and have your 0 removed (changed to a 90) you must watch the recording of the lecture and fill in your notes as you watch. Once complete, you must upload a scan of your notes into the spot corresponding to the missed date in Gradescope before the next class meeting.

**Textbook**
*Precalculus: Mathematics for Calculus, 7th Edition*, by Stewart, Redlin

**Technology Requirements**
- You will also need a scanner (or a scanning app for your phone),
- Webcam and microphone. (Most laptops come equipped with both a webcam and microphone.)
- 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/worksheets.

**Communication**
I will do my best to 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 will be held in Blackboard Collaborate and may require the assistance of a telephone for audio.

Grading

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

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Percent of Total Grade</th>
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</thead>
<tbody>
<tr>
<td>Homework Assignments</td>
<td>15%</td>
</tr>
<tr>
<td>Attendance</td>
<td>5%</td>
</tr>
<tr>
<td>Tests 1 – 3 (~17% each)</td>
<td>55%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>25%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

Grading System
Course grades will depend on completing course requirements and meeting the student learning outcomes.

This course uses the following grading scale:
- 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

Exams
Tests/Final Exam: There will be three regular exams during the semester and a cumulative final exam. There will be no make-up exams. If you do miss an exam, contact me immediately.

Tentative Test Dates:
- Test 1: Thursday, September 23rd
- Test 2: Thursday, October 21st
- Test 3: Tuesday, November 23rd

Final Exam: Thursday, December 9th from 8:00am – 10:00am
Homework Policy

- Homework will be assigned over every section covered. Assigned problems will be posted in Blackboard.
- Homework will be submitted in Gradescope.
- Homework is due on Tuesdays and Fridays at 11:59pm.
- No late homework will be accepted.
- You will need to scan pictures of every page of your homework, convert it to a pdf file, and upload it to Gradescope.
- It is your responsibility to make sure the upload is successful before the assignment is due.
- If you need assistance with an assignment, see me for help before it is due.
- I will drop 3 homework grades at the end of the semester to compensate for unavoidable circumstances.
- Box and/or highlight your answers.
- 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
- Angelo State University Catalog

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.

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. The employee charged with the responsibility of reviewing and authorizing accommodation requests is:

Dr. 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 for more information.

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. Resources to help you understand this policy better are available at the ASU Writing Center.

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.
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
Face to Face: Mayer Administration Building, Room 210
Phone: 325-942-2022
Email: 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.

Information About COVID-19

Please refer to ASU’s COVID-19 (Coronavirus) Updates web page for current information about campus guidelines and safety standards as they relate to the COVID-19 pandemic.
## Use of Masks/Facial Coverings by Students

ASU is not currently mandating facial coverings; however, please feel free to wear a facial covering when you are indoors among groups of people. Facial coverings have been an effective part of the COVID-19 management strategy. These safety precautions support our efforts to continue operations without disruptions and provide as traditional of an educational experience as possible.

## Modifications to the Syllabus

This syllabus, including grade evaluation and course schedule, is subject to modification on potentially short notice based on developing circumstances.

### Course Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Sections/Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Syllabus, 1.2 Exponents and Radicals, 1.3 Algebraic Expressions</td>
</tr>
<tr>
<td>2</td>
<td>1.3 Algebraic Expressions, 1.4 Rational Expressions, 1.5 Equations</td>
</tr>
<tr>
<td>3</td>
<td>1.5 Equations, 1.8 Inequalities, 1.9 The Coordinate Plane; Graphs of Equations; Circles</td>
</tr>
<tr>
<td>4</td>
<td>1.10 Lines, 2.1 Functions, 2.2 Graphs of Functions</td>
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<tr>
<td>5</td>
<td>2.3 Getting Information from the Graph of a Function, 2.4 Average Rate of Change of a Function, <strong>TEST 1</strong></td>
</tr>
<tr>
<td>6</td>
<td>2.5 Linear Functions and Models, 2.6 Transformations of Functions, 2.7 Combining Functions</td>
</tr>
<tr>
<td>7</td>
<td>2.8 One-to-One Functions and Their Inverses, 3.1 Quadratic Functions and Models, 3.2 Polynomial Functions and Their Graphs</td>
</tr>
<tr>
<td>8</td>
<td>3.2 Polynomial Functions and Their Graphs, 3.3 Dividing Polynomials, 3.6 Rational Functions</td>
</tr>
<tr>
<td>9</td>
<td>3.6 Rational Functions, 13.1 Finding Limits Numerically and Graphically, <strong>TEST 2</strong></td>
</tr>
<tr>
<td>10</td>
<td>13.2 Finding Limits Algebraically, 13.4 Limits at Infinity: Limits of Sequences</td>
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<tr>
<td>11</td>
<td>10.1 Systems of Linear Equations in Two Variables, 10.2 Systems of Linear Equations in Several Variables, 10.7 Partial Fractions</td>
</tr>
<tr>
<td>12</td>
<td>10.7 Partial Fractions, 10.8 Systems of Non-linear Equations</td>
</tr>
<tr>
<td>13</td>
<td>10.9 Systems of Inequalities, 4.1 Exponential Functions, 4.2 The Natural Exponential Function</td>
</tr>
<tr>
<td>14</td>
<td><strong>TEST 3</strong></td>
</tr>
<tr>
<td>15</td>
<td>4.3 Logarithmic Functions, 4.4 Laws of Logarithms, 4.5 Exponential and Logarithmic Equations</td>
</tr>
<tr>
<td></td>
<td><strong>Final Exam: Thursday, December 9th from 8:00am – 10:00am</strong></td>
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