Contact Information
Instructor: Karl Havlak
Office: MCS 220A
Office Phone: (325) 486-5432
e-mail: Karl.Havlak@angelo.edu

Office Hours:
10:00 – 11:00 a.m., MTWRF;
2:00 – 3:00 p.m., MTWRF;
or by appointment

Textbook/Ebook
Precalculus: Functions and Graphs (12th edition) by Swokowski and Cole. You have prepaid for access to an ebook for this course and should receive information about accessing the text prior to the beginning of the semester. A hard copy of the textbook is available for purchase at a discounted rate for students in this section of precalculus. Also, a copy of the textbook is on reserve in the library.

Blackboard
This course has an associated Blackboard page where you will have access to grades, assignments, videos, handouts, and other course-related items.

Course Content
Selected sections from chapters 1 – 6 and chapter 10 will be studied.

Grading System
The final average will be determined according to the weights in the table that follows.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Date</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam I</td>
<td>February 8 (Thu)</td>
<td>20-25%</td>
</tr>
<tr>
<td>Exam II</td>
<td>March 8 (Thu)</td>
<td>20-25%</td>
</tr>
<tr>
<td>Exam III</td>
<td>April 12 (Thu)</td>
<td>20-25%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>May 8 (Tue)</td>
<td>20-25%</td>
</tr>
<tr>
<td>Homework</td>
<td>Most Days</td>
<td>15%</td>
</tr>
</tbody>
</table>

Grading Policy
To determine the average needed to ensure that you obtain the grade that you want in this course, consult the table that follows.

<table>
<thead>
<tr>
<th>Average</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>89.5 and above</td>
<td>A</td>
</tr>
<tr>
<td>79.5 to 89.5</td>
<td>B</td>
</tr>
<tr>
<td>69.5 to 79.5</td>
<td>C</td>
</tr>
<tr>
<td>59.5 to 69.5</td>
<td>D</td>
</tr>
<tr>
<td>below 59.5</td>
<td>F</td>
</tr>
</tbody>
</table>

Homework Policy
Homework sets will be assigned most days using the online course system called WebAssign. You can access WebAssign through a link in Blackboard. Assignments will be due before midnight on the next class day. It is best that the majority of the homework be completed prior to the next class day, so, if I discover that most students only begin working on the assignment the day it is due, then I will change my policy and make assignments due prior to the beginning of the class day after the homework was
assigned. The lowest 2 homework grades will be dropped at the end of the semester when determining the homework average. I will allow up to 2 late assignments during the semester. No other late assignments will be accepted for any reason. If you have trouble completing a homework assignment, please see me for assistance.

**Quizzes**
There will be regular short quizzes (5 minutes or less) at the beginning of class throughout the semester. The quizzes will be over graphs of functions and trigonometric identities and will begin sometime in February. The quizzes will begin at 8:00 a.m. and cannot be made up. Each quiz will count as a homework grade. I will drop the 2 lowest quizzes.

**Exams**
There will be four exams scheduled as shown above, which will account for 85% of your final grade. The highest of these exams will account for 25% of your final grade and the other three will each account for 20% of your final grade. The fourth exam will be held during final exam week on Tuesday, May 8, 8:00 am – 10:00 a.m. This exam will be over all sections of chapter 6 and 10 that are covered in the course.

**Attendance**
Attendance will be taken regularly. Please inform me of any absences prior to the absence whenever possible.

**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.

**Study Aids**
The Math Lab offers to all students enrolled in mathematics courses through Calculus an opportunity to obtain free math help. The Math Lab is located on the 3rd floor of the library (C302), and its times are listed below.

- Monday – Thursday: 9:00 a.m. - 8:00 p.m.
- Friday: 9:00 a.m. - 12:00 p.m.
- Sunday: 4:00 pm - 8:00 p.m.

- The Department of Mathematics maintains a list of students who are interested in tutoring privately. Students who are interested in obtaining private tutoring or serving as private tutors should visit the department office for more information.
- 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.

**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 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.

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:
  - Angelo State University Student Handbook
  - Angelo State University Catalog

- 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.

- 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.

All items contained in this syllabus are subject to change as the semester progresses. Students will be notified in advance of any changes.
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.

Textbook


Course Content

Content consists of the following topics, listed according to the corresponding chapters in the text. (See textbook “Contents.”)

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:** Trigonometric Equations, The Addition and Subtraction Formulas, Multiple-Angle Formulas, The Inverse Trigonometric Functions.


### Anticipated Daily Schedule

The table below indicates the expected sections that will be discussed on the date listed.

<table>
<thead>
<tr>
<th>Day</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 16</td>
<td>1.2</td>
</tr>
<tr>
<td>January 18</td>
<td>1.3</td>
</tr>
<tr>
<td>January 23</td>
<td>1.3, 1.4</td>
</tr>
<tr>
<td>January 25</td>
<td>1.4, 1.6</td>
</tr>
<tr>
<td>January 30</td>
<td>1.6, 2.2</td>
</tr>
<tr>
<td>February 1</td>
<td>2.2, 2.3</td>
</tr>
<tr>
<td>February 6</td>
<td>2.4, 2.5</td>
</tr>
<tr>
<td>February 8</td>
<td>Exam I</td>
</tr>
<tr>
<td>February 13</td>
<td>2.5</td>
</tr>
<tr>
<td>February 15</td>
<td>2.5, 2.7</td>
</tr>
<tr>
<td>February 20</td>
<td>2.6, 3.1</td>
</tr>
<tr>
<td>February 22</td>
<td>3.5</td>
</tr>
<tr>
<td>February 27</td>
<td>4.1, 4.2</td>
</tr>
<tr>
<td>March 1</td>
<td>4.2, 4.3, 4.4</td>
</tr>
<tr>
<td>March 6</td>
<td>4.5, 4.6</td>
</tr>
<tr>
<td>March 8</td>
<td>Exam II</td>
</tr>
<tr>
<td>March 20</td>
<td>4.6, 5.1</td>
</tr>
<tr>
<td>March 22</td>
<td>5.2</td>
</tr>
<tr>
<td>March 27</td>
<td>5.4, 5.3</td>
</tr>
<tr>
<td>March 29</td>
<td>5.3, 5.5</td>
</tr>
<tr>
<td>April 3</td>
<td>5.5, 5.6</td>
</tr>
<tr>
<td>April 5</td>
<td>6.1, 6.2</td>
</tr>
<tr>
<td>April 10</td>
<td>6.2, 6.3</td>
</tr>
<tr>
<td>April 12</td>
<td>Exam III</td>
</tr>
<tr>
<td>April 17</td>
<td>6.3, 6.4</td>
</tr>
<tr>
<td>April 19</td>
<td>6.6, 10.5</td>
</tr>
<tr>
<td>April 24</td>
<td>6.6, 10.5</td>
</tr>
<tr>
<td>April 26</td>
<td>6.6, 10.5, 10.1</td>
</tr>
<tr>
<td>May 1</td>
<td>10.2, 10.3</td>
</tr>
<tr>
<td>May 3</td>
<td>10.2, 10.3</td>
</tr>
<tr>
<td>May 8</td>
<td>Final Exam 8:00 – 10:00 a.m.</td>
</tr>
</tbody>
</table>
Blackboard Link: [http://blackboard.angelo.edu](http://blackboard.angelo.edu)
Observance of Religious Holy Days: [http://www.angelo.edu/content/files/14206-op-1019-student-absence-for-observance-of](http://www.angelo.edu/content/files/14206-op-1019-student-absence-for-observance-of)
Grading Procedures: [http://www.angelo.edu/content/files/14197-op-1011-grading-procedures](http://www.angelo.edu/content/files/14197-op-1011-grading-procedures)
ASU Writing Center: [http://www.angelo.edu/dept/writing_center/academic_honesty.php](http://www.angelo.edu/dept/writing_center/academic_honesty.php)
University Catalog: [http://www.angelo.edu/catalogs/](http://www.angelo.edu/catalogs/)