MATH 1324 - T20
FINITE MATHEMATICS

Instructor: Dr. Simon Pfeil
Email: simon.pfeil@angelo.edu
Phone: (325) 486-5436
Office: MCS 219C

Office Hours: Monday: 11am-1pm and 3pm-4pm
Tuesday: 12:15pm-2pm and 3:15pm-4pm
Wednesday: 11am-12pm
Thursday: 12:15pm-2pm and 3:15pm-4pm
Friday: 11am-12pm
…or by appointment via email.

Course Information

Course Description
This is an introductory college math course, covering a broad range of ideas. Topics include basic algebra, linear equations, quadratic equations, functions and graphs, inequalities, logarithms and exponential functions, mathematics of finance, linear programming, matrices, systems of linear equations, and applications to management, economics, and business.

Course Content
1. Algebra and Equations. The real numbers; polynomials; factoring; rational expressions; exponents and radicals; first-degree equations; quadratic equations.
2. Graphs, Lines, and Inequalities. Graphs; functions; equations of lines; linear inequalities.
3. Functions and Graphs. Functions; graphs of functions; applications of linear functions; quadratic functions and applications.
4. Exponential and Logarithmic Functions. Exponential functions; logarithmic functions; logarithmic and exponential equations.
5. **Mathematics of Finance.** Simple interest; compound interest; annuities, future value, and sinking funds; annuities, present value, and amortization.

6. **Systems of Linear Equations.** Systems of two linear equations in two variables; larger systems of equations; basic matrix operations; matrix products and inverses.

7. **Sets and Probability.** Sets; introduction to probability; basic concepts of probability; conditional probability and independent events.

---

**Prerequisite and Co-requisite Courses**

None.

**Prerequisite Skills**

The most important prerequisite skills are perseverance and the willingness to seek help when it is needed. Also, some high school algebra, and the ability to navigate Blackboard and MyLab for information and supplemental materials will be useful.

---

**Student Learning Outcomes**

Upon completion of this course:

1. **Students will demonstrate 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 Finite Mathematics I including exponents, factoring, linear and quadratic equations, number systems, functions, polynomials, logarithms, matrices, mathematics of finance, set theory, and basic probability.

2. **Students will describe the fundamental principles arising from the mathematical ideas associated to business applications.** Students will identify and apply the laws and formulas that result directly from the definitions; for example, the properties associated with probability models and probability experiments, the properties of exponents, logarithms, equations, and the formulas associated with the mathematics of finance.

3. **Students will apply the course material along with techniques and procedures covered in this course to solve business related problems.** Students will use the facts, formulas, and the techniques learned in this course to solve basic business problems. This includes applying probability models to business problems; solving annuity and interest problems; analyzing and interpreting graphs; converting logarithmic equations to
exponential equations and vice-versa; using lines and their properties; performing matrix operations; graphing various function types; and employing the use of calculators and/or computers.

4. **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 necessary for areas requiring Finite Mathematics I as a prerequisite. These areas might include business, marketing, finance, computer science, nursing, and the social sciences, as well as mathematics.

**Course Delivery**

This is a face-to-face course with learning resources and supplemental materials posted in Blackboard.

**Required Texts and Materials**

*Finite Mathematics with Applications, 12th edition,* by Lial, Hungerford, Holcomb, and Mullin. (MyLab access is recommended.)

**Technology Requirements**

To successfully complete this course, it is recommended that students purchase access to MyLab.

**Instructions to link accounts and register:**

To open your MyLab or Modified Mastering course from Blackboard, link your Blackboard and Pearson accounts and register.

You only link accounts once, but you'll need to register for any additional courses.

**Important**

- **Course ID:** You don't need a course ID to register. If you're asked for one, close the tab or window and register using the steps below. Otherwise, your grades won't appear correctly.

**To link accounts and register:**

1. Enter your Blackboard course.
2. **Open your MyLab and Mastering course.**
3. If you previously linked your Blackboard and Pearson accounts, the Pearson payment page appears. Go to step 6.
4. Agree to Pearson privacy policy or authentication requests.
5. Enter the **Username** and **Password** for your Pearson student account.
If you don't have a Pearson student account or already linked your accounts while attending a different school or institution, select **Create**.

- Use an existing Pearson account to save time and only have one username and password to remember. You can only link one Blackboard account to one Pearson account.
- Select **forgot username or password** for an email with your username and a link to reset your password.

6. Select an access option:
   - Enter the access code that came with your textbook or that you purchased separately from the bookstore.
   - Use a credit card or PayPal.
   - If available, get temporary access by selecting the link near the bottom of the page. (Upgrade your access before it expires to continue using your MyLab or Modified Mastering course.)

If you're taking another semester of a MyLab or Modified Mastering course you already paid for, you skip this step and go straight to the Pearson page.

7. From the You're Done page, select **Go to My Courses**.

Check for your confirmation email.

**Communication**

Email is a great way to contact me. I will 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.
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>
</tr>
</thead>
<tbody>
<tr>
<td>1: Real Numbers and Polynomials (1.1 and 1.2)</td>
<td>8.3%</td>
</tr>
<tr>
<td>2: Factoring and Algebraic Notation (1.3, 1.4, and 1.5)</td>
<td>8.3%</td>
</tr>
<tr>
<td>3: Introduction to Equations (1.6 and 1.7)</td>
<td>8.3%</td>
</tr>
<tr>
<td>4: Graphs, Lines, and Inequalities (2.1, 2.2, and 2.4)</td>
<td>8.3%</td>
</tr>
<tr>
<td>5: Functions and Graphs of Functions (3.1 and 3.2)</td>
<td>8.3%</td>
</tr>
<tr>
<td>6: Applications of Linear and Quadratic Functions (3.3 and 3.4)</td>
<td>8.3%</td>
</tr>
<tr>
<td>7: Exponential and Logarithmic Functions (4.1, 4.3, and 4.4)</td>
<td>8.3%</td>
</tr>
<tr>
<td>8: Simple and Compound Interest (5.1 and 5.2)</td>
<td>8.3%</td>
</tr>
<tr>
<td>9: Annuities and Amortization (5.3 and 5.4)</td>
<td>8.3%</td>
</tr>
<tr>
<td>10: Systems of Linear Equations (6.1 and 6.2)</td>
<td>8.3%</td>
</tr>
<tr>
<td>11: Matrices and Matrix Operations (6.4 and 6.5)</td>
<td>8.3%</td>
</tr>
<tr>
<td>12: Sets and Probability (8.1, 8.3, and 8.4)</td>
<td>8.3%</td>
</tr>
<tr>
<td>Final Exam + or – one letter grade</td>
<td>8.3%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

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)

Assignment and Activity Descriptions
The course grade will be based on the average of all assessment grades. Assessments will reflect the course content and be administered as exams during class. Each
assessment will be graded for accuracy with no partial credit. Furthermore, any score below 70% on an assessment will be treated as a 0% score for that assessment.

However! Each assessment may be retaken as many times as necessary, at the convenience of the professor. The retake policy for assessments is as follows:

- First attempt: In class, as scheduled.
- Second attempt: In office hours, scheduled with professor via email.
- Third attempt and on: Must meet with professor to discuss previous attempts. Scheduled with professor during this meeting.

The final score on each assessment will be the score of the last attempt; that is, only the most recent score counts.

Example 1: Student takes Assessment 1 in class and scores 75%. Unsatisfied, the student schedules a retake for Assessment 1. On the retake, the student scores 90%. The student’s new score on the assessment is 90%.

Example 2: Student takes Assessment 1 in class and scores 55%. This score counts as 0% in the gradebook. The student schedules a retake and scores a 70%. The student’s new score for the assessment is 70%. Wishing to improve their score further, the student meets with the professor, discusses the two previous attempts, and schedules a third attempt. On the third attempt, the student scores a 75%. The student’s score on the assessment is 75%.

Example 3: Student takes Assessment 1 and scores 80%. The student schedules a retake and scores 65%. The student’s new score for the assessment is 0%.

Homework in this class is for your practice and improvement, and will not be counted toward your final grade.

The Final Exam will only adjust your final grade by at most one letter. Your Final Percentage is calculated as the averages of your assessment scores. That Final Percentage is then converted to a letter grade as described in the above grading system. The Final Exam will

- improve your letter grade by one letter if you score 90% or above,
- leave your letter grade unaffected if you score between 60% and 90%,
- or lower your letter grade by one letter if you score below 60%.

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 to 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:

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.

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

Online: [www.angelo.edu/incident-form](http://www.angelo.edu/incident-form)
Face to face: Mayer Administration Building, Room 210
Phone: 325-942-2022
Email: michelle.boone@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: [www.angelo.edu/title-ix](http://www.angelo.edu/title-ix).
<table>
<thead>
<tr>
<th>Week</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Aug. 26 - Sept. 1</td>
<td>Course Introduction</td>
<td>Meeting with Professor</td>
<td>Section 1.1</td>
<td>Section 1.1 WORK DAY</td>
<td>Section 1.2</td>
</tr>
<tr>
<td>2: Sept. 2 - Sept. 8</td>
<td>NO CLASS: Labor Day</td>
<td>Section 1.2 WORK DAY</td>
<td>Section 1.3</td>
<td>Section 1.3 WORK DAY</td>
<td>Section 1.3 And 1.4</td>
</tr>
<tr>
<td>3: Sept. 9 - Sept. 15</td>
<td>Section 1.4 And 1.5</td>
<td>Section 1.4 WORK DAY</td>
<td>Section 1.5</td>
<td>Section 1.5 WORK DAY</td>
<td>Assessment: 1 and 2</td>
</tr>
<tr>
<td>4: Sept. 16 - Sept. 22</td>
<td>Section 1.6 WORK DAY</td>
<td>Section 1.6</td>
<td>Section 1.7</td>
<td>Section 1.7 WORK DAY</td>
<td>Section 2.1 and 2.2</td>
</tr>
<tr>
<td>5: Sept. 23 - Sept. 29</td>
<td>Section 2.2 WORK DAY</td>
<td>Section 2.2</td>
<td>Section 2.4</td>
<td>Section 2.4 WORK DAY</td>
<td>Assessment: 3 and 4</td>
</tr>
<tr>
<td>6: Sept. 30 - Oct. 6</td>
<td>Section 3.1 WORK DAY</td>
<td>Section 3.1 WORK DAY</td>
<td>Section 3.2</td>
<td>Section 3.2 WORK DAY</td>
<td>Section 3.3</td>
</tr>
<tr>
<td>7: Oct. 7 - Oct. 13</td>
<td>Section 3.3 and 3.4</td>
<td>Section 3.3 WORK DAY</td>
<td>Section 3.4</td>
<td>Section 3.4 WORK DAY</td>
<td>Assessment: 5 and 6</td>
</tr>
<tr>
<td>8: Oct. 14 - Oct. 20</td>
<td>Section 4.1 WORK DAY</td>
<td>Section 4.1</td>
<td>Section 4.3</td>
<td>Section 4.3 WORK DAY</td>
<td>Section 4.4</td>
</tr>
<tr>
<td>9: Oct. 21 - Oct. 27</td>
<td>Section 5.1 WORK DAY</td>
<td>Section 5.1</td>
<td>Section 5.2</td>
<td>Section 5.2 WORK DAY</td>
<td>Assessment: 7 and 8</td>
</tr>
<tr>
<td>10: Oct. 28 - Nov. 3</td>
<td>Section 5.3 WORK DAY</td>
<td>Section 5.3 WORK DAY</td>
<td>Section 5.3 And 5.4</td>
<td>Section 5.4 WORK DAY</td>
<td>Section 5.4</td>
</tr>
<tr>
<td>11: Nov. 4 - Nov. 10</td>
<td>Section 6.1 WORK DAY</td>
<td>Section 6.1</td>
<td>Section 6.2</td>
<td>Section 6.2 WORK DAY</td>
<td>Assessment: 9 and 10</td>
</tr>
<tr>
<td>12: Nov. 11 - Nov. 17</td>
<td>Section 6.4 WORK DAY</td>
<td>Section 6.4</td>
<td>Section 6.5</td>
<td>Section 6.5 WORK DAY</td>
<td>Section 8.1</td>
</tr>
<tr>
<td>13: Nov. 18 - Nov. 24</td>
<td>Section 8.3 WORK DAY</td>
<td>Section 8.3 WORK DAY</td>
<td>Section 8.4</td>
<td>Section 8.4 WORK DAY</td>
<td>Assessment: 11 and 12</td>
</tr>
<tr>
<td>14: Nov. 25 - Dec. 1</td>
<td>Review for Final Exam</td>
<td>Review for Final Exam</td>
<td>NO CLASS: Thanksgiving</td>
<td>NO CLASS: Thanksgiving</td>
<td>NO CLASS: Thanksgiving</td>
</tr>
<tr>
<td>15: Dec. 2 - Dec. 8</td>
<td>Review for Final Exam</td>
<td>Review for Final Exam</td>
<td>Review for Final Exam</td>
<td>Review for Final Exam</td>
<td>Review for Final Exam</td>
</tr>
<tr>
<td>16: Dec. 9 - Dec. 15</td>
<td>FINAL EXAM: 3:30pm-5:30pm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Footnotes

1 https://www.angelo.edu/student-handbook/
2 https://www.angelo.edu/catalogs/
3 https://www.angelo.edu/student-handbook/community-policies/academic-integrity.php
4 https://www.angelo.edu/services/disability-services/
5 https://www.angelo.edu/content/files/14197-op-1011-grading-procedures
6 https://www.angelo.edu/content/files/14206-op-1019-student-absence-for-observance-of