

Angelina College
Technology and Workforce Division
TECM 1301 – Industrial Mathematics
Instructional Syllabus

I. BASIC COURSE INFORMATION:

A. Course Description:

Math skills applicable to industrial occupations. Includes fraction and decimal manipulation, measurement, percentage, and problem solving techniques for equations and ratio/proportion applications. Three hours credit. Three lecture hours each week.

B. Intended Audience:

1st Semester Freshman

C. Instructor: Bill Fisk

Office Location: Administration Building, IT Office

Office Hours: 8-10 AM MWF

Phone: (936) 633-5294

E-mail Address: bfisk@angelina.edu

II. INTENDED STUDENT OUTCOMES:

A. Core Objectives Required for this Course

1. **Personal Responsibility:** to include the ability to connect choices, actions and consequences to ethical decision-making.
2. **Empirical and Quantitative Skills:** to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.
3. **Critical Thinking:** to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.

B. Course Learning Outcomes for all Sections

Upon successful completion of this course the student will be able to:

1. Convert between decimals and fractions;
2. Use measuring tools;
3. Calculate ratios and proportions in a technical application; and
4. Transpose linear equations to solve for unknowns.

III. ASSESSMENT MEASURES

A. Assessments for the Core Objectives:

1. **Personal Responsibility:** Students will use Personal Responsibility to show their commitment by attending and participating in class. The students will be assessed through the use of the Attendance/Class Participation points.
2. **Empirical and Quantitative Skills:** Students will use Empirical and Quantitative Skills to answer exam questions. The students will be assessed by taking section exams.
3. **Critical Thinking:** Students will use Critical Thinking Skills to answer exam questions. The students will be assessed by taking section exams.

B. Assessments for Course Learning Outcomes

Student will be assessed on their knowledge of:

1. Converting between decimals and fractions will be assessed through questions in an examination.
2. Using measuring tools will be assessed through questions in an examination.
3. Calculating ratios and proportions in a technical application will be assessed through questions in an examination.
4. Transposing linear equations to solve for unknowns will be assessed through questions in an examination.

IV. INSTRUCTIONAL PROCEDURES:

This course is being delivered in a hybrid format. Approximately 50% of student participation will be delivered and submitted outside of the classroom through Blackboard. Content delivered outside of the classroom may include assignments, presentations, and handouts.

V. COURSE REQUIREMENTS AND POLICIES:

A. **Required Textbooks and Recommended Readings, Materials and Equipment**

Textbook: Practical Math, American Technical Publisher, 4th edition

Equipment: Scientific calculator: examples TI-30X, TI-30Xa, Sharp EL-531, Sharp EL-501W, or Casio fx-991MS. **(Cell phones are not adequate calculators)**

B. **Course Policies – This course conforms to the policies of Angelina College as stated in the Angelina College Handbook.**

1. **Academic Assistance** – If you have a disability (as cited in Section 504 of the Rehabilitation Act of 1973 or Title II of the Americans with Disabilities Act of 1990) that may affect your participation in this class, you should see Sandra Cox in the Student Center.. At a post-secondary institution, you must self-identify as a person with a disability; Ms. Cox will assist you with the necessary information to do so. To report any complaints of discrimination related to disability, you should contact Mr. Steve Hudman, Dean of Student Affairs, in Student Center, Room 101; (936) 633-5292; or by email at shudman@angelina.edu.

2. **Attendance** – Attendance is required per Angelina College Policy and will be recorded each week.

During the Fall or Spring semesters, any student with three (3) consecutive classroom absences of four (4) cumulative classroom absences may be dropped from the class. A class that meets once per week counts as 2 class periods. Students are also required to log into the online portion of the course at least once each week and complete a minimum of one hour of coursework.

Habitual lateness or absences will affect the student's participation/attendance grade. Students who are late for class will be docked attendance points. Students that are exceptionally late (>10 minutes) are counted as absent. If the student should be absent please contact the instructor before class by email or phone message.

Do not assume that non-attendance in class will always result in an instructor drop. **You must officially drop a class or risk receiving an F.** This is official Angelina College Policy.

- Students begin the semester with 100 points for attendance and class participation
- Students lose 25 points per absence for Fall or Spring semesters
- Students lose 10 points if they are late to class (from 1 to 10 minutes after class start, >10 minutes is counted as absent)

3. **Additional Policies Established by the Instructor**

- **Class Preparation and Tools.** Students **will** come to each class prepared to complete assignments. Class tools include: book, notebook, paper, pencil/pen, and calculator. Class Participation includes working problems on the board, answering questions, etc.
- **Cell Phones.** Cell phones must be turned off and put away during class time (**unless specified to be used to take part in classroom activities ie., polling, electronic answering**). Using a cell phone during class is disrespectful and you will be missing valuable classroom instruction.
- **Cheating and Plagiarism.** Copying the work of classmates on assignments or exams is strictly prohibited.
- **Classroom Computers.** Computers are to be used for coursework only. Accessing social media and/or retail sites, etc. is prohibited. Computer usage is monitored from the

- instructor station.
- **Sleeping.** Sleeping in class will not be tolerated. If you sleep, you'll be considered absent from class.
- **Eating/Drinking.** No food in class, drinks allowed only if bottle contains a screw type lid.

VI. COURSE OUTLINE: Description of the Course Activities including due dates, schedules, and deadlines.

See attached outline for weekly schedule and due dates.

Textbook Problems

Assignments from the textbook will be submitted for grading using Blackboard. All textbook assignments will be submitted by their due date. No late work will be accepted.

Chapter Exercises – 2 attempts – 0.5 points each question

Chapter Reviews – 2 attempts – 1.0 points each question

Chapter Tests – 1 attempt – 1.5 points each question

Quizzes

Terminology quizzes for each chapter will be submitted for grading using Blackboard. All quizzes will be submitted by their due date. No late work will be accepted. *If it's late, it's a zero.*

Tests

Tests must be taken on the scheduled date. Special arrangements must be made before the day of test for exceptions covered under the College Bulletin.

VII. EVALUATION AND GRADING:

A. Grading Criteria

The final grade will be comprised of:

Textbook Problems	760 points
10 Chapter Terminology Quizzes (10 points each)	100 points
3 Tests (200 points each)	600 points
<u>Attendance, Class Participation</u>	<u>100 points</u>
Total points available	1,560 points

B. Determination of Grade

The final grade will be awarded using the following scale:

1,396 points to 1,560	A
1,240 points to 1,395	B
1,084 points to 1,239	C
928 points to 1,083	D
Below 928	F

The instructor may modify the provisions of the syllabus to meet individual class needs by informing the class in advance as to the changes being made.