TEXARKANA COLLEGE

Syllabus: Foundations of Mathematical Reasoning
Course Number: MATH 0023
Semester & Year:
Instructor Information
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Course Description- The sixteen-week course is for **Non-STEM** students. Topics include numeracy with an emphasis on estimation and fluency with large numbers; evaluating expressions and formulas; rates, ratios, and proportions; percentages; solving equations; linear models; data interpretations including graphs and tables; verbal, algebraic, and graphical representations of functions; and exponential models. This course is non-transferable and does not count toward a degree at Texarkana College. Prerequisite: A grade of C or better in Math 0031 or Satisfactory placement scores. (TSI Scores: 320-344). Co-requisite: PYSC/EDUC 1300.

Textbook and Supplies
- MyMathLab (MML) by Pearson (this is an access code that can be purchased in the TC bookstore or online through the MyMathLab website)
- Foundations of Mathematical Reasoning (FMR) Student Course Packet (purchased from the bookstore)
- 2 inch 3-ring binder for this class only (included with the FMR Student Course Packet)
- Recommended TI-84 Plus Graphing Calculator or TI 30XA calculator (please do not use cell phones as a calculator)
- Writing material-pencils, eraser, highlighters, etc.
- Working Texarkana College email account
- Basic computer skills to access online resources and information

Student Learning Outcomes for the Course
1. Students will develop number sense and the ability to apply concepts of numeracy to investigate and describe quantitative relationships and solve real-world problems in a variety of contexts.
2. Students will use proportional reasoning to solve problems that require ratios, rates, proportions, and scaling.
3. Students will transition from specific and numeric reasoning to general and abstract reasoning using the language and structure of algebra to investigate, represent, and solve problems.
4. Students will understand and critically evaluate statements that appear in the popular media (especially in presenting medical information) involving risk and arguments based on probability.
5. Students will understand, interpret, and make decisions based on financial information commonly presented to consumers.
6. Students will understand that quantitative information presented in the media and by other entities can sometimes be useful and sometimes be misleading.

Learning Goals - This course is a quantitative reasoning course. This means you will learn to use, understand, and communicate about quantitative information. The course has five goals:

- **Communication goal**: You will interpret and communicate quantitative information and mathematical and statistical concepts using language appropriate to the context and intended audience.
- **Problem Solving goal**: You will make sense of problems, develop strategies to find solutions, and persevere in solving them.
- **Reasoning goal**: You will reason, model and make decisions with mathematical, statistical, and quantitative information.
- **Evaluation goal**: You will critique and evaluate quantitative arguments that utilize mathematical, statistical, and quantitative information.
- **Technology goal**: You will use appropriate technology in a given context.

Overarching Content-based Mathematics and Quantitative Literacy Learning Outcomes
- **Numeracy**: Students will develop number sense and the ability to apply concepts of numeracy to investigate and describe quantitative relationships and solve real-world problems in a variety of contexts.
- **Proportional Reasoning**: Students will use proportional reasoning to solve problems that require ratios, rates, proportions, and scaling.
- **Algebraic Competence, Reasoning, Modeling**: Students will transition from specific and numeric to general and abstract reasoning using the language and structure of algebra to investigate, represent, and solve problems.
- **Assessing Risk (Probabilistic Reasoning):** Students will understand and critically evaluate statements involving risk and arguments based on probability that appear in the popular media, especially in presenting medical information.
- **Personal Finance**: Students will understand, interpret and make decisions based on financial information that is commonly presented to consumers.
- **Civic Life**: Students will understand that quantitative information presented in the media and by other entities can sometimes be useful and sometimes be misleading.

Evaluation Method:
The grade for this course will be based on:
1. **Homework** – Practice and Preview assignments will be completed online.
    a. Students must log in often and with a timely process to access and complete preview and practice assignments. First day homework, includes to "check computer configurations" and register for MyMathLab (MML).
    b. Note that homework is separated into two parts:
        1) Practice Assignments: Homework over the lesson tasks and activities completed in class. **No late work accepted on practice assignments.**
        2) Preview Assignments: Homework to prepare for what is coming up for the next class. **The maximum grade earned for late preview assignments will be a 50%.**
    c. Notebook – Work completed inside and outside of class should be kept in your binder. We may have periodic notebook checks to monitor student learning.
    d. Participation/Discussion - Students enrolled are expected to participate as a learning community by being prepared for class, engaging in group activities, joining class discussions, communicating their understanding of mathematics, and explaining their work to others.
    e. Productive Persistence - Students are encouraged to read through the tasks and activities using a think-pair-share method. Students will be working either individually or in groups and finally discussing the material with the entire class. This is part of the learning process and participation from each student is encouraged during and outside of class.
2. **Tests** – Four unit exams will be given this semester. Each student is required to take all unit exams and the final exam. Tests will be taken either in the testing center or in the classroom. **Students MUST take the test during the time period given by the instructor.**

3. **Final Exam** – The final will be a comprehensive exam. A comprehensive final exam is mandatory for all students.
*NOTE: Calculators are allowed on all work unless otherwise instructed.

Student Requirements for Completion of the Course and Due Dates
Homework assignments are to be completed using MyMathLab (MML). In order to earn credit, preview assignments should be completed before class and practice assignments should be completed by midnight on the next class day. You will not receive any credit for assignments completed after the due date. **You,** the student, **are** responsible for all assignments regardless of whether you are present at the time of assignment. **Any missed assignment will be recorded as a zero.** At the end of the semester your 5 lowest homework grades will be dropped and will not count towards your homework average. Even though the homework is online, you should still work both your practice and preview problems on paper.

Student Assessment
You have opportunity to earn points in the following 3 areas. Your final grade will be determined by the corresponding percentages.
  (1) Homework 20% (lowest 5 scores dropped)
  (2) Major Tests 50%
  (3) Final Exam 30%
Final Grade = 0.2*Homework Avg + 0.5*Test Avg + 0.3*Final Exam

Grading Scale
Assignment of a letter grade will be made according to the following scale.

A	90-100	**B**	80-89	**C**	70-79	**D**	60-69	**F**	59-below

NOTE: There is NO provision for earning extra credit in this course. You **MUST** receive a grade of A, B, or C in order to proceed to the next class.

Absentee Policy
Texarkana College's absentee policy allows instructors to withdraw a student from a course due to excessive absences. If a student leaves and returns during class or leaves the class before the class is over, he/she **may** be considered absent or tardy. **Three tardies constitute one absence.**

Faculty members **are not** obligated to provide opportunities for students to make-up missed assignments and tests as a result of a student's absence from class. Regular attendance enhances academic success. As such, students are expected to attend each meeting of their registered courses.

A student should not stop attending a class without formally withdrawing from the course by the institutions published Last Day for Students to Drop. If a student stops attending class after the published Last Day for Students to Drop, the student **may** receive a grade of "F" in the class. The instructor will submit the last date of attendance for students receiving a grade of "F" or "W".

Withdrawal from a course(s) **may** affect a student's current or future financial aid eligibility. Students should consult the Financial Aid Office to learn both short and long term consequences of a withdrawal.

Maximum Allowable Absences
The maximum allowable absences refers to the maximum number of unexcused absences a student is allowed before a student may be dropped from the course. After official registration for a three hour academic class, the

instructor may withdraw a student from the course if they exceed 4 absences. This means you may be dropped from the course for having 5 recorded absences.

Excused Absences
A student's absence due to school trips and/or school business will not be counted against a student's allowable number of absences. Military duty and absences for Holy Days (FBD LEGAL) are covered in a separate section of the catalog and the student handbook. These are the only excused absences that are considered by Texarkana College. Responsibility for work missed for any absence is placed on the student. Instructors are required to allow students to make up work missed if the absence is due to military duty or religious holy days when students follow the correct notification procedures. Instructors are not required to allow students to make up work for absences due to other reasons.

Make-up Policy
Any missed test will be recorded as a zero. Any student missing 2 major tests will be dropped from the course. **If your final exam grade is higher than one of your unit test grades, the final exam grade will replace the lower test score.** This means if you do miss a test, the 0 will be replaced with the score from your final exam.   Students may have the homework due date extended for excused absences (See excused absences above). You will not receive credit for homework assignments after the due date has passed. At the end of the semester your **5** lowest homework grades (previews and practices) will be dropped and will not count towards your homework average.

Class Behavior
There will be a zero tolerance policy for any behavior that is a disruption to classroom learning. This includes ANY use of vulgar language or rude behavior toward instructor or any other student in the class. This also includes disruptive cell phone usage during class! Please be considerate of others who are trying to learn.

A student may be dropped from the course for any of the following reasons:
1. Missing 5 classes
2. Missing 2 major tests
3. Any breach of classroom conduct (see student handbook)
*Being dropped from the course could affect your financial aid.

Tutoring and Extra Help
Texarkana College also offers free tutoring to all students, including online students, in the Math Lab located on the second floor of the Library. In order to use the tutoring available in the Math Lab, simply bring your Student ID with you to the library, go upstairs to the area labeled Math Lab and use your ID to sign in (on the designated sign-in computer), then work on any math work at the computers or tables in the Math Lab area. The Math Lab tutors are available to help with any questions you may have about assignments.

Math Lab hours of operation for this semester are:
Mon- Thurs   8:00 am – 9:00 pm
Fri   8:00 am – 4:00 pm
Sun   2:00 pm – 9:00 pm

Course Correspondence
Any course correspondence will be through TC student email. It is the student's responsibility to check his/ her TC email regularly for any communication related to the course.

Academic Integrity Statement
Scholastic dishonesty, involving but not limited to cheating on a test, plagiarism, collusion, or falsification of records will make the student liable for disciplinary action after being investigated by the Dean of Students.

Proven violations of this nature will result in the student being dropped from the class with an "F". This policy applies campus wide, including TC Testing Center, as well as off-campus classroom or lab sites, including dual credit campuses. This information can be found in the Student Handbook at https://texarkanacollege.edu.

Disability Act Statement
Texarkana College complies with all provisions of the Americans with Disabilities Act and makes reasonable accommodations upon request. Please contact Tonja Blasé' at 903.823.3349, or go by the Recruitment, Advisement, and Retention Department located in the Administration building for personal assistance. If you have an accommodation letter from their office indicating that you have a disability which requires academic accommodations, please present it to me so we can discuss the accommodations that you might need for this class. It is best to request these changes at the beginning if not before the start of class so there is ample time to make the accommodations.

Financial Aid
Attention! Dropping this class may affect your funding in a negative way! You could owe money to the college and/or federal government. Please check with the Financial Aid office before making a decision.

The instructor reserves the right to amend the syllabus as needed.