**Midland College Syllabus**
2022 - 2023
MATH 0232 (co-requisite courses Math 1332 and Math 0180)
2 Semester Credit Hours
(2 Lecture/0 Lab)

**Instructor Information:**

Instructor: syllabus
Office: Click here to enter text.
Phone: Click here to enter text.
Email: Click here to enter text.
Office Hours: Click here to enter text.

**Notice**: Students MUST actively participate by completing an academic assignment required by the instructor by the official census date. Students who do not actively participate in an academically-related activity may be reported as never attended and dropped from the course.

**Course Description:**
Math 0232 is a one semester course for non-STEM majors co-requisite to Math1332, Quantitative Reasoning, and may be taken by any student with TSI scores from 310-349. This course is designed as a support course to help students be successful in the transfer level course Math1332. The focus of this course is on developing mathematical maturity through problem solving, critical thinking, writing and communicating mathematics by integrating numeracy, proportional reasoning, algebraic reasoning, and functions. Co-requisite: Math1332, Quantitative Reasoning; Math 0180, Mathematical Calculations (Math Lab)

**Text, References and Supplies:**
- Bennett and Briggs, Using and Understanding Mathematics with MyMathLab Integrated Review, 7th ed, Pearson
- ◦ ISBN: 978-0-13-525618-3
- MyMathLab Access Code only
- ◦ ISBN: 978-0-13-471586-5
- Use of a functional computer with Internet access on a daily basis
- Scientific calculator (No graphing calculators allowed at any time)
- 2 - 2 ½ inch 3-ring binder, pencil and notebook paper

**Student Learning Outcomes:**
After successfully completing this course the student should be able to:

Numeracy:
1. Demonstrate operation sense and the effects of common operations on numbers in words and symbols.
2. Demonstrate competency in the use of magnitude in the contexts of place values, fractions, and numbers written in scientific notation.
3. Use estimation skills.
4. Apply quantitative reasoning to solve problems involving quantities or rates.

5. Demonstrate measurement sense.
6. Demonstrate an understanding of the mathematical properties and uses of different types of mathematical summaries of data.
7. Read, interpret and make decisions based upon data from line graphs, bar graphs, and charts.

Proportional Reasoning:

1. Apply quantitative reasoning strategies to solve real-world problems with proportional relationships.

Algebraic Reasoning:

1. Understand various uses of variables to represent quantities or attributes.
2. Describe the effect that changes in variable values have in an algebraic relationship.
3. Construct and solve equation or inequalities to represent relationships involving one or more unknown or variable quantities to solve problems.

Functions:

1. Translate problems from a variety of contexts into a mathematical representation and vice versa.
2. Describe the behavior of common types of functions using words, algebraic symbols, graphs and tables
3. Understand that abstract mathematical models used to characterize real-world scenarios or physical relationships are not always exact and may be subject to error from many sources.

Student Success:

1. Develop written and verbal skills in relation to course content.
2. Evaluate personal learning style, strengths, weaknesses, and success strategies that address each.
3. Research using print and online resources.
4. Apply time management and goal setting techniques.

Mathematical Success:

1. Develop the ability to use mathematical skills in diverse scenarios and contexts.
2. Use technology appropriately including calculators and computers.
3. Demonstrate critical thinking by analyzing ideas, patterns, and principles.
4. Demonstrate flexibility with mathematics through various contexts, modes of technology, and presentations of information (tables, graphs words, equations).
5. Demonstrate and explain skills needed in studying for and taking tests.

**Student Contributions, Responsibilities and Class Policies:**

Students will be expected to comply with the policies outlined in the Midland College Student Handbook. Instructor policies concerning attendance and academic

behavior are consistent with the policies in the student handbook. Regular attendance is required to do well in this class.
Students are expected to arrive punctually and participate in class. Students should behave in an appropriate manner so as not to interfere with learning. What is inappropriate will be determined by the instructor. For example, please turn off all cell phones.

**Attendance Policy:**
It is the responsibility of the students to know the policies and procedures associated with absences. These policies are set by instructors.
Excused absences may include, but are not limited to, illness, severe weather, and death in the family. Instructors will determine whether or not an absence is excused. Please visit the Midland College Catalog

**Withdrawal Policy:**
Students who have enrolled in a Texas public institution of higher education as a first-time freshman in fall 2007 or later are permitted to drop no more than six courses during the entire undergraduate career. This limit includes all transfer work taken at a Texas institution of higher education and to second baccalaureate degrees. This statute was enacted by the State of Texas in spring 2007 (Texas Education Code 51.907). Any course that a student drops after Census Day is counted toward the six-course limit if "(1) the student was able to drop the course without receiving a grade or incurring an academic penalty; (2) the student's transcript indicates or will indicate that the student was enrolled in the course; and (3) the student is not dropping the course in order to withdraw from the institution." Please visit the Midland College Catalog

**Scholastic Dishonesty:**
Midland College does not tolerate scholastic dishonesty or academic misconduct in any form. Please read the MC Student Handbook on this subject. Please visit the Midland College Catalog

**Evaluation of Students:**
Students will be evaluated using a variety of methods including examinations and written assignments, group work, web-based assignments, attendance, participation and organization. The grades are either Pass or Fail.

**Course Schedule:**
Numeracy:

Arithmetic operations of whole numbers, integers, fractions, decimals, and percentages
Magnitude and scientific notation
Estimation – knowing how and when to estimate results, to solve problems and to detect errors
Problems involving quantities or rates.

Measurement
Data interpretation and measures of central tendency
Line graphs, bar graphs and charts
Measure of central tendency
Calculators (hand-held and online) skills

Proportional Reasoning:

Proportional relationships from verbal and numeric representations
Comparing proportional relationships
Applying quantitative reasoning strategies to solve real world problems involving proportionality
Using similarity to solve applications
Using dimensional analysis to convert units of measure
Writing and solving proportions

Algebraic Reasoning:

Uses of variables
Effects of variables on other variables in the algebraic relationship
Constructing and using equations or inequalities
Writing and interpreting compound inequalities in one variable
Writing and simplifying algebraic expressions by using the distributive property, combining like terms, and/or factoring the GCF
The Pythagorean Theorem.

Functions:

Translating problems into a mathematical representation and vice versa including linear, exponential, and quadratic functions
Behavior of common types of functions using expressions, graphs and tables
Identifying linear models
Characteristics of functions including slope, points, intercepts, inputs, and outputs
Using appropriate terms and units to describe rate of change
Understand mathematical models
Applying formulas to solve problems related to perimeter, area, and volume
Order of operations
Solving a formula for one of its variables
Interpreting slope as a rate of change
Writing and solving systems of linear equations in two variables
Determining solutions for linear inequalities
Use of Excel

**Intellectual Competencies:**

1. Reading - Understanding the material incorporated in the text used in this course will require the student to analyze and interpret various mathematical concepts.
2. Listening - The primary teaching methods used in this course are discussion and lecture. Understanding the oral presentation of material will require the student to analyze and interpret various mathematical concepts.
3. Critical Thinking - Critical thinking, as exemplified by problem solving, is inherent in the study of any scientific discipline. Mathematical problems will be considered, discussed, and analyzed in this course.

**Non-Discrimination Statement**

Midland College does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities. The following individual has been designated to handle inquiries regarding the non-discrimination policies:

**Tana Baker**
Title IX Coordinator/Compliance Officer
3600 N. Garfield, SSC 131
Midland, Texas 79705
(432) 685-4781
tbaker@midland.edu

For further information on notice of non-discrimination, visit the ED.gov Office of Civil Rights website, or call 1 (800) 421-3481.

**Americans with Disabilities Act (ADA) Statement:**

Midland College provides services for students with disabilities through Student Services. In order to receive accommodations, students must visit www.midland.edu/accommodation and complete the Application for Accommodation Services located under the Apply for Accommodations tab. Services or accommodations are not automatic, each student must apply and be approved to receive them. All documentation submitted will be reviewed and a "Notice of Accommodations" letter will be sent to instructors outlining any reasonable accommodations.

**Continuity of Instruction Statement**

In the event that on campus activities are suspended due to extenuating circumstances, such as weather or quarantine, the instructor will continue instruction in a manner that best supports the course content and student engagement. In this event, your instructor will notify students of the change via Click here to enter text. At that time, they will provide details about how instruction and communication will continue, how academic integrity will be ensured, and what students may expect during the time that on campus activities are suspended. If a student becomes unable to continue class participation due to extenuating

circumstances, (e.g., health and safety, loss of power, etc.) the student should contact their instructor and advisor for guidance. Resources are available to students via the SOS program. Information can be found at https://www.midland.edu/services-resources/student-services/sos.php.

**Grievances or complaints**

Concerns should be expressed as soon as possible to allow for early resolution. Midland College encourages students to discuss their concerns with their instructor first. If you feel uncomfortable discussing your situation with your instructor, students should discuss their concerns with the Chair of the appropriate department (Biology Chair – Mr. Tomas Hernandez (432-685-6751), Chemistry Chair – Mr. John Anderson (432-685-6737), Engineering and Physics Chair – Dr. Brian Flowers (432-685-4586), Geology Chair – Mr. Antony Giles (432-685-5580), Kinesiology Chair – Ms. Sheena Thompson (432-685-4579), Math Chair – Dr. Krista Cohlmia (432-685-4541) then the Dean of Math and Science – Dr. Miranda Poage (432-685-4561). If a resolution is still not possible, students may proceed with the formal complaint process.
http://catalog.midland.edu/content.php?catoid=14&navoid=2579#grievances-and-complaints

**Math & Science Division Information:**

Division Office: AHSF 124 (432) 685-4561
Division E-Mail: mns@midland.edu

Department Chair: Dr. Krista Cohlmia (432) 685-4541
Dean: Dr. Miranda Poage
Secretary: Sarah Anderson
Clerk: Liliana Orcutt

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