Midland College Syllabus
2022-2023
MATH 1351
Mathematics for Teachers II
3 Semester Credit Hours
(3 Lecture/0 Lab)

Instructor Information:

Instructor: Click here to enter text.   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:
This course is intended to build or reinforce a foundation in fundamental mathematics concepts and skills. It includes the concepts of geometry, measurement, probability, and statistics with an emphasis on problem solving and critical thinking. Prerequisite: A C or better in MATH 1350.

A teaching demonstration/project is required for this course. Participation in the evening math night is required to earn credit.

Text, References and Supplies:
- Kader. <u>Developing Essential Understanding of Statistics for Teaching Math</u>; ISBN 978-0-87353-672-1
- Sinclair. <u>Developing Essential Understanding of Geometry for Teaching Mathematics in Grades 6-8</u>; ISBN 978-0-87353-691-2
- Sinclair. <u>Developing Essential Understanding of Geometry for Teaching Mathematics in Grades 9-12</u>; ISBN 978-0-87353-692-9
- Computer access may be required by some instructors.
- Scientific calculator

Student Learning Outcomes
After successfully completing this course the students should be able to:
1. Apply fundamental terms of geometry such as points, lines, and planes to describe two and three dimensional figures.
2. Make and test conjectures about figures and geometric relationships.
3. Use a variety of methods to identify and justify congruency and similarity of geometric objects.
4. Perform geometric transformation.
5. Demonstrate fundamental probability techniques and apply those techniques to solve problems.

6. Explain the use of data collection and statistics as tools to reach reasonable conclusions.
7. Recognize, examine, and utilize the basic principles of describing and presenting data.
8. Perform measurement processes and explain the concept of a unit of measurement.
9. Develop and use formulas for the perimeter, area, and volume for a variety of figures.

Student Contributions, Responsibilities and Class Policies:

Students will be expected to comply with the policies outlined in the Midland College Catalog. Instructor policies concerning attendance and academic behavior are consistent with the policies in the catalog. Regular attendance is required to do well in this class.

Students will be evaluated based on the results of assessments outlined in the syllabus and Instructor Handout.

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 Student Rights & Responsibilities section in the Midland College Catalog for more information.

Evaluation of Students:

Students will be evaluated based on grades which may including the following but are not limited to:

Assessments	Percentage of Grade	Grade Range
Exams	35-45%	90-100 A
Quizzes/Activities/Assignments	0-20%	89-80 B
Teaching Demo/Project	15-30%	79-70 C
Final Exam	20-25%	69-60 D
		59-0 F

 Students will be evaluated based on the results of examinations given throughout the semester. Your lecture instructor will inform you on the first day of class as to the tentative dates and content for each exam. Students are expected to complete each exam. Your instructor will inform you on the first day of class as to make-up procedures for missed exams and any exemption procedures if they apply (See Instructor Handout).

Course Schedule:

This class meets for 3 contact hours per week. For a tentative schedule of the class meetings and material to be covered during those meetings, please refer to the schedule distributed to each student on the first class meeting (See Instructor Handout).

Course Outline:

From the text, select topics from each book will be covered. Appropriate assignments from the text and lectures will be used to enhance concepts.

From Developing Essential Understanding of Statistics for Teaching Mathematics in Grades 6-8
      Big Idea 1: Distributions describe variability in data.
      Big Idea 2: Statistics can be used to compare two or more groups of data.
      Big Idea 3: Bivariate distributions describe patterns or trends in covariability in data on two variables.

From Developing Essential Understanding of Geometry for Teaching Mathematics in Grades 6-8
      Big Idea 1: Behind every measurement formula lies a geometric result.
      Big Idea 2: Geometric thinking involves developing, attending to, and learning how to work with imagery.
      Big Idea 4: Classifying, naming, defining, posing, conjecturing, and justifying are codependent activities in geometric investigation.

From Developing Essential Understanding of Geometry for Teaching Mathematics in Grades 9-12
      Big Idea 1: Working with diagrams is central to geometric thinking.
      Big Idea 2: Geometry is about working with variance and invariance, despite appearing to be about axioms.

Big Idea 3: Working *with* and *on* definitions is central to geometry.
Big Idea 4: A written proof is the endpoint of the process of proving.

In addition to the text material, students will participate in activities designed to reinforce concepts and demonstrate methods for classroom use, explore extensions in critical thinking, and use individual and collaborative learning to broaden mathematical foundation.

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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