Midland College Syllabus
2018-2019
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: MATH 1314 (College Algebra) or 1414.

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

Text, References and Supplies:
  - ISBN: 978-0-13-522998-9 (Midland College custom print)
- Computer access may be required by some instructors.
- MyMathLab Access Code 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:

<table>
<thead>
<tr>
<th>Assessments</th>
<th>Percentage of Grade</th>
<th>Grade Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exams</td>
<td>35-45%</td>
<td>90-100 A</td>
</tr>
<tr>
<td>Quizzes/Activities/Assignments</td>
<td>0-20%</td>
<td>89-80 B</td>
</tr>
<tr>
<td>Teaching Demo/Project</td>
<td>15-30%</td>
<td>79-70 C</td>
</tr>
<tr>
<td>Final Exam</td>
<td>20-25%</td>
<td>69-60 D</td>
</tr>
</tbody>
</table>

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 chapters 9-14 will be covered. Appropriate assignments from the text and companion website will be used to enhance concepts.
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.

Geometric Figures
9.1 Figures in the Plane
9.2 Curves and Polygons in the Plane
9.3 Figures in Space

Measurement: Length, Area, Volume
10.1 The Measurement Process
10.2 Area and Perimeter
10.3 The Pythagorean Theorem
10.4 Volume
10.5 Surface Area
Transformations, Symmetries, and Tilings
  11.1 Rigid Motions and Similarity Transformations
  11.2 Patterns and Symmetries
  11.3 Tilings and Escher-like Designs

Congruence, Constructions, and Similarity
  12.1 Congruent Triangles
  12.2 Constructing Geometric Figures
  12.3 Similar Triangles

Statistics
  13.1 Organizing and Representing Data
  13.2 Measuring the Center and Variation of Data

Probability
  14.1 Experimental Probability
  14.2 Applications of Counting Principles to Probability
  14.3 Permutations and Combinations
  14.4 Odds, Expected Values, Geometric Probability, and Simulations

**ADA Statement:**
Midland College provides services for students with disabilities through Student Services. In order to receive accommodations, students must place documentation on file with the Counselor/Disability Specialist. Students with disabilities should notify Midland College prior to the beginning of each semester. More information can be found at Student Services – Disability Services or by contacting the Midland College Disability Specialist at 685-4505.

Student Services will provide each student with a letter outlining any reasonable accommodations. The student must present the letter to the instructor at the beginning of the semester.

Midland College does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities. The following individuals have been designated to handle inquiries regarding the non-discrimination policies: Tana Baker, Title IX Coordinator/Compliance Officer, 3600 N. Garfield, SSC 242, Midland, TX 79705, (432) 685-4781, tbaker@midland.edu; Natasha Morgan, Director Human Resources/Payroll, 3600 N. Garfield, PAD 104, Midland, TX 79705, (432) 685-4534, nmorgan@midland.edu. For further information on notice of non-discrimination, visit [http://wdcrobcolp01.ed.gov/CFAPPS/OCR/contactus.cfm](http://wdcrobcolp01.ed.gov/CFAPPS/OCR/contactus.cfm) or call 1 (800) 421-3481.

**Spanish**
Midland College no discrimina por motivos de raza, color, nacionalidad, sexo, discapacidad, o edad en sus programas o actividades. Las siguientes personas han sido designadas para responder a cualquier
pregunta o duda sobre estas políticas no discriminatorias: Tana Baker, Title IX Coordinator/Compliance Officer, 3600 N. Garfield, SSC 242, Midland, TX 79705, (432) 685-4781, tbaker@midland.edu; Natasha Morgan, Director Human Resources/Payroll, 3600 N. Garfield, PAD 104, Midland, TX 79705, (432) 685-4534, nmorgan@midland.edu. Para más información sobre estas políticas no discriminatorias, visite http://wdcrobcollp01.ed.gov/CFAPPS/OCR/contactus.cfm o llame al 1 (800) 421-3481.

Math/Science Division Information:
Division Dean: Dr. Margaret Wade 125 AHSF (432) 685-4615
Department Chair: Dr. Sonia Ford 110 AHSF (432) 685-4525
Division Secretary: Mrs. Carol Pritchard 124 AHSF (432) 685-6404
Division Clerk: Ms. Sarah Anderson 124 AHSF (432) 685-6896

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