Midland College
Syllabus
2014 - 2015
MATH 1314
College Algebra
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.

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 will be reported as never attended and dropped from the course.

Course Description:
This course is designed to enable students to become proficient in the study and applications of
polynomial, rational, radical, exponential and logarithmic functions, and systems of equations
using matrices. Additional topics such as sequences, series, probability, and conics may be
included. Pre-requisite: TSI complete in Math.

Core Objectives: Critical Thinking, Communication Skills, Empirical & Quantitative.

Text, References and Supplies:
Auffman and Nation, College Algebra Bundle/Custom Pkg, 8th ed.,Brooks/Cole/Cengage
Learning. ISBN: 978-1-3053848-0-4
Scientific calculator.
Computer access is required for online course.
Enhanced Web Assign code is required by some instructors.

Student Learning Outcomes
Upon successful completion of this course, students will:
1. Demonstrate and apply knowledge of properties of functions, including domain and
range, operations, compositions, and inverses.
2. Recognize and apply polynomial, rational, radical, exponential and logarithmic
functions and solve related equations.
3. Apply graphing techniques.
4. Evaluate all roots of higher degree polynomial and rational functions.
5. Recognize, solve and apply systems of linear equations using matrices.
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 will be evaluated based on the results of examinations given throughout the semester.

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. http://catalog.midland.edu/content.php?catoid=6&navoid=673

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).

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.” http://catalog.midland.edu/content.php?catoid=6&navoid=673

Scholastic Dishonesty:
Midland College does not tolerate scholastic dishonesty or academic misconduct in any form. Please read the MC Student Handbook on this subject. http://catalog.midland.edu/content.php?catoid=6&navoid=673

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

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<thead>
<tr>
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<th>GRADE RANGE</th>
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<tbody>
<tr>
<td>Exams</td>
<td>90-100%</td>
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<tr>
<td>Quizzes/Assignments</td>
<td>0-10%</td>
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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:
Equations and Inequalities
1.3 Quadratic Equations
1.4 Other Types of Equations

Functions and Their Graphs
2.2 Introduction to Functions
2.3 Linear Functions
2.4 Quadratic Equations
2.5 Properties of Graphs
2.6 Algebra of Functions

Polynomial and Rational Functions
3.1 Remainder Theorem and Factor Theorem
3.2 Polynomial of Functions of Higher Degree
3.3 Zeros of Polynomial Functions
3.4 Fundamental Theorem of Algebra
3.5 Graphs of Rational Functions and Their Applications

Exponential and Logarithmic Functions
4.1 Inverse Functions
4.2 Exponential Functions and Their Applications
4.3 Logarithmic Functions and Their Applications
4.4 Properties of Logarithms and Logarithmic Scales
4.5 Exponential and Logarithmic Equations
4.6 Exponential Growth and Decay

Systems of Equations
6.1 Systems of Linear Equations in Two Variables
6.2 Systems of Linear Equations in Three Variables
6.3 Nonlinear Systems of Equations
6.4 Partial Fractions

Matrices
7.1 Gaussian Elimination Method
7.2 Algebra of Matrices
7.3 Inverse of a Matrix
**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.

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.

**Math/Science Division Information:**

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<thead>
<tr>
<th>Position</th>
<th>Name</th>
<th>Office</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Division Dean</td>
<td>Dr. Margaret Wade</td>
<td>125 AHSF</td>
<td>685-4615</td>
</tr>
<tr>
<td>Program Chair</td>
<td>Michael Dixon</td>
<td>109 AHSF</td>
<td>685-4616</td>
</tr>
<tr>
<td>Division Secretary</td>
<td>Ms. Brenda Smith</td>
<td>124 AHSF</td>
<td>685-6413</td>
</tr>
</tbody>
</table>