

**MARION TECHNICAL COLLEGE
ARTS & SCIENCES DEPARTMENT
COURSE SYLLABUS**

COURSE NAME: Beginning Algebra **COURSE NUMBER:** MTH1100
CREDIT HOURS: 3 **NUMBER OF CLASS HOURS/WEEK:** 3

1. GENERAL COURSE DESCRIPTION

This is a course in beginning college algebra. Course content includes a review of real numbers, equations in one and two variables, graphs and functions, exponents, polynomials, and factoring polynomials. MTH1100 is designed to provide an introduction to college algebra for students in all areas of study. Emphasis is given to solving applied application problems from the different curricula. 3 credit hours. Prerequisite: MTH0990 or algebra placement test.

2. COURSE PREREQUISITES OR STUDENT ENTRY SKILLS

If you have not completed the following course(s) or equivalent with at least a "C" grade or possess the below listed skills, it is likely that you will have difficulty with this course. Consult with your instructor immediately.

Introduction to Algebra (MTH0990) or Algebra Placement Test

3. COURSE OUTLINE BY TOPIC AND SUBTOPICS:

<u>Week</u>	<u>Topic</u>	<u>Reference</u>
1	Introduction to Course Review of Real Numbers	Chapter 1
2-3	Equations, Inequalities, and Problem Solving	Chapter 2
4-5	Graphing	Chapter 3
6-7	Systems of Linear Equations	Chapter 4
8	Midterm Test	
9-10	Exponents and Polynomials	Chapter 5
10-12	Factoring Polynomials	Chapter 6
13-15	Rational Expressions	Chapter 7
16	Final Test	

4. REQUIRED TEXT(S):

1. *Beginning & Intermediate Algebra*, 4/E, Elayn Martin-Gay, Prentice Hall, ISBN-10: 0136007317 or ISBN-13: 9780136007319.
2. Students are required to have a Texas Instruments TI-30X IIS calculator. **Graphing calculators may not be used in this course.**

5. CRITERIA FOR DETERMINING COURSE GRADE:

The final grade will be determined by the following formula.

Homework	15%
Quizzes	25%
Midterm Test	30%
Final Test (Comprehensive)	30%
	100%

6. COURSE GRADE STANDARDS:

A	=	100%	-	90%
B	=	89%	-	80%
C	=	79%	-	75%
D	=	69%	-	60%
F	=	Below 60%		

7. ADDITIONAL STUDENT INFORMATION:

Workload: Depending on your preparation for the course and the assignments necessary to support the course objectives, you can expect to spend a minimum of two hours in outside preparation for each hour in class.

Anyone having difficulty in attending class, completing the assignments on time, etc. should consult with the instructor as soon as possible. Each case and any adjustments will be handled individually.

If, unavoidably, a student cannot be present for a test, he/she must notify the instructor before the test is given if he/she desires to be considered for a "make-up". A telephone message to the college receptionist (389-4636) is considered sufficient notification and the instructor will assess the validity of the reason for the absence. Please remember the instructor is under no obligation to grant a make-up.

8. ACADEMIC MISCONDUCT:

The faculty at Marion Technical College has defined Academic Misconduct to mean the representation of the work of another as one's own. Whether it is on a quiz, test, homework, research paper, design project, drawing, lab report or any other form of academic evaluation an instructor may employ, we believe this misrepresentation to be a serious breach of academic ethics, and is blatantly unfair to one's fellow students.

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The first such incidence will result in a "F" (grade of zero) on the respective exam, paper, etc. The second occurrence in the course or any subsequent course at MTC can result in dismissal from the college.

If there is evidence of collaboration, all parties will be subject to the above penalties. Documentation of any academic misconduct will become part of the student's academic file.

9. CLASS/LAB RESTRICTIONS:

There will be no food, beverages or smoking in the classroom/labs at any time.

Students are not permitted to operate any equipment unless specifically authorized by an instructor.

Communication Device/Cell Phone Usage Policy

All personal communication devices, including cell phones, must be set to *vibrate* or *off* while in classrooms, labs and participating in other class-related activities, unless use of such a device is specified in the official course syllabus. Infractions will result in warnings and, eventually, grade-related penalties. Exceptions must be approved in writing by the instructor.

Additionally, all personal communication devices, including cell phones, must be *deactivated* (turned completely off) during exams, quizzes or other evaluations. Any student found to be using a communication device during an exam will be given a grade of zero for the exam.

10. COURSE SKILL AND LEARNING OBJECTIVES:

Core Competencies

1. Solve problems using basic mathematical operations.
2. Solve algebraic equations.
3. Create and interpret tables, graphs, and charts.
4. Solve algebra problems involving exponents and polynomials.
5. Solve problems involving factoring polynomials.
6. Solve algebra problems involving rational expressions.

Measurable Learning Objectives

1. Simplify algebraic expressions.
2. Solve algebraic problems in one variable.
3. Solve problems involving formulas.
4. Solve algebraic problems in two variables.

5. Solve word problems involving algebra.
6. Read and interpret graphs and charts.
7. Draw graphs.
8. Solve word problems involving graphs, tables, and graphing.
9. Solve problems involving exponents.
10. Solve problems involving the simplification of polynomial expressions.
11. Solve word problems involving exponents and polynomial expressions.
12. Factor binomials and trinomials.
13. Solve quadratic equations by factoring
14. Solve word problems involving factoring quadratic equations.
15. Simplify rational expressions
16. Add, subtract, multiply rational expressions
17. Solve equations containing rational expressions
18. Solve word problems containing rational expressions

11. GRADUATE COMPETENCIES:

MTC believes that every graduate should possess a *common* set of skills regardless of the student's major. These skills are collectively called the College Graduate Competencies, or CGC's. The faculty has defined specific CGC's in five areas: Mathematics, Communications, Information Technology, Problem Solving and Decision Making, and Interpersonal and Professional Behavior. These skills are taught, reinforced, and/or periodically measured in various courses throughout the curriculum in every degree program. For additional information, visit www.mtc.edu and link to *academic programs*, then *assessment of learning*.

12.

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