

MATH 115--Elementary Algebra, Section 1474 (Fall 2014)

Time: M – Th 11:10-12:25 **Room:** MSA006

Prerequisite: Math 112 with a grade of “C” or better, or an appropriate placement.

Instructor: Dr. Mohamad Alwash **Email:** alwashm@wlac.edu
Office: MSB-212 **Office Hours:** M – Th 9:15-10:40

Textbook: Beginning Algebra, by Aufmann, Barker, and Lockwood; 7th Edition.

Homework and Quizzes: Homework assignments will be given every day. Each assignment will be collected and graded, checked in class, or checked by a quiz. We shall also discuss the assigned questions during the next class period. Do not expect that we do all the questions in class. If you have more questions, please come to office hours. These assignments will make up 20% of the final course grade. There is no makeup quizzes.

Tests: There will be six tests. Each test is worth 8% of the grade. Makeup tests are given to students possessing valid excuses. **Advanced notice is mandatory.**

Final: This is a comprehensive multiple-choice exam. It is worth 32% of the grade.

Attendance: If you miss four days, the instructor has the option of excluding you from the class. Coming 3 minutes late or leaving three minutes early means absent.

Summary: Total 1000 points; Tests 480P; Quizzes 200P; Final 320P

Grading: A 900 or more, B 800-899, C 700-799, D 600-699, F < 600

Important Dates: Last day to drop without a “W” 9/12/14, with a “W” 11/21/14

* We expect that students are familiar with the following concepts and skills:

1. Adding, subtracting, multiplying, and dividing whole numbers, fractions, and decimal numbers.
 2. Simplifying expressions using order of operations.
 3. Changing percents to decimals or fractions.
- These concepts will be reviewed in the first chapter.*

* By the end of this course students should be able to:

1. Solve linear equations and inequalities with one variable.
2. Solve application problems modeled by linear equations.
3. Graph linear equations and inequalities in two variables.
4. Solve linear systems of two equations.
5. Add, subtract, multiply, and divide polynomials.
6. Factor polynomials.
7. Add, subtract, multiply, and divide rational functions.
8. Solve rational equations and their applications.
9. Simplify radicals and solve equations with radicals.
10. Solve quadratic equations by factoring, completing squares, and the quadratic formula.

Schedule (Tentative)

Weeks	Monday	Tuesday	Wednesday	Thursday
9/1	Holiday	Ch1	Ch1	Ch1
9/8	Ch1, Q1	Ch2	Ch2	Ch2
9/15	Ch3, Q2	Ch3	Ch3	Review, Q3
9/22	Test1	Ch4	Ch4	Ch4, Q4
9/29	Ch4	Ch4	Ch4	Ch4, Q5
10/6	Ch5	Ch5	Ch5	Review, Q6
10/13	Test2	Ch6	Ch6	Ch6, Q7
10/20	Ch7	Ch7, Q8	Ch7	Review, Q9
10/27	Test3	Ch8	Ch8	Ch8, Q10
11/3	Ch8	Ch8	Ch9	Review, Q11
11/10	Test4	Holiday	Ch9	Ch9
11/17	Ch9, Q12	Ch9	Ch9	Review, Q13
11/24	Test5	Ch10	Ch10	Holiday
12/1	Ch10, Q14	Ch10	Ch11	Ch11
12/8	Review, Q15	Test6	Review	Review

Final: Thursday 12/18; 11:30-1:30

Note: Phones and devices with communication ability are not allowed.

Institutional Student Learning Outcomes

- A) Critical Thinking: Analyze problems by differentiating fact from opinions, using evidence, and using sound reasoning to specify multiple solutions and their consequences.
- B) Quantitative Reasoning: Identify, analyze, and solve problems that are quantitative in nature.
- C) Technical Competence: Utilize the appropriate technology effectively for informational, academic, personal, and professional needs.

Math Program Student Learning Outcomes

1. Apply quantitative thinking processes using basic mathematical operations (addition, subtraction, multiplication, division) to solve common academic, workplace, and family problems. (Theme: Quantitative thinking; mathematical operations)
2. Analyze and interpret spatial and graphic data (schedules, maps, tables, graphs, and geometric figures). (Theme: spatial and graphic data).
3. Use mathematical tools essential for analyzing quantitative problems and for producing solutions. (Theme: mathematical tools)
4. Apply advanced mathematical concepts and tools (algebra, calculus) essential in upper division academic work and/or workplace tasks. (Theme: advanced mathematical operations—algebra, calculus)
5. Select appropriate math strategies for solving and handling application problems involving (for example) finance, science, economics, and family issues. (Theme: mathematical problem-solving)