MATH 147: COLLEGE ALGEBRA

Course Description from Bulletin:

This course is an in-depth study of the properties of the set of real numbers; operations with exponents (integer and rational), and radicals; simplifying polynomials and rational expressions; and solving equations, inequalities, and systems of equations.

Enrollment: Required for students who score less than 60% on the ALEKS placement exam.

Required material:

- Beecher, J., Penna, J., Johnson, B., and Bittinger, M. *College Algebra with Intermediate Algebra (Pearson+)*, 1st edition. (eBook through MyLab & Mastering, Pearson).
- Notebook or other device for notetaking, pen, pencil…
- A computer, a laptop, an iPad or other device you can use to access course materials on Canvas

Prerequisites: none

Learning Objectives: Students will be able to:

1. Evaluate expressions involving real numbers.
2. Evaluate and simplify expressions involving exponents (integer and rational), and radicals.
3. Perform operations with polynomials and rational expressions.
4. Simplify polynomials and rational expressions.
5. Solve equations (absolute value, polynomial, rational, and radical).
6. Solve inequalities (absolute value, polynomial, and rational).
7. Solve systems of linear equations in two variables.
8. Use the language of mathematics to communicate mathematical ideas.
9. Justify their own solution approaches and critique solution approaches of others.

Lecture Schedule: Three 75 minutes lectures per week.

Assessment: Attendance and Participation 5%
Homework/Quizzes: 25%
Tests: 45%
Final Exam: 25%

Course Outline:

		Hours
1.	Review: The set of real numbers, operations with real numbers, absolute value, exponential notation, and order of operations	3
2.	Algebraic expressions	4
3.	Properties of exponents and logarithms	4
4.	Solving linear equations and inequalities	6
5.	Solve absolute value equations and inequalities	6
6.	Solving systems of linear equations in two variables	4
7.	Polynomials, polynomial equations and inequalities	9
8.	Rational expressions, equations and inequalities	9
9.	Radicals and radical expressions, radical equations	8

Syllabus prepared by: Gorjana Popovic

Date: August 2024.