Math 30 – Elementary Algebra

Instructor: Beth Powell

Section # 2404

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HYBRID online and

Friday 9am – 10:50am Room 3508

office: Rm. 1214

Prerequisite: The prerequisite for Math 30 is completion of Math 20 with a grade of "C" or better, or a qualifying score on the Math Competency Exam (MCE).

Course Description: Designed to prepare students for Intermediate Algebra. Elementary Algebra teaches simplifying algebraic expressions involving polynomials and rational terms; factoring; solving linear equations; solving quadratic equations using factoring; analyzing graphs of linear equations; and solving applied problems. This course will also include an introduction to algebraic operations with rational expressions.

Student Learning Outcomes:

- 1. Students will be able to make use of factoring techniques, solve quadratic equations by factoring, and make use of factoring to simplify rational expressions.
- 2. Students will be able to translate English phrases into algebraic expressions and equations, and solve applied problems.
- 3. Students will be able to perform operations related to linear equations in two variables, solve systems of linear equations, and solve applications which can be modeled using systems of linear equations.

Course Objectives: At the end of this course you should be able to (1) evaluate and simplify algebraic expressions using the rules of exponents, order of operations, combining like terms, and the distributive property; (2) add, subtract, multiply and divide using either monomials or polynomials;

(3) solve a linear equation or inequality and check the solution; (4) analyze verbal problems, model with appropriate equations, substitute the known values, solve the resulting equations, and interpret the result in the context

of the problem; (5) factor polynomials; (6) simplify, multiply and divide, add and subtract rational expressions; (7) graph first degree equations in two variables; (8) write an equation for a given line, identify the slope of a line; and (9) solve quadratic equations by factoring.

Grading: Your course grade will be based on the following:

| Homework/class notes | 10% | A= 90% and above |
|-------------------------|-----|---------------------|
| Quizzes (4) | 20% | B= 80% - 89% |
| Tests (2) | 40% | C= 70% - 79% |
| Final Exam (cumulative) | 30% | D= 60% - 69% |
| | | F= below 60% |

Textbook: The textbook used is an electronic version of the *Beginning and Intermediate Algebra, 4th ed.* By Blitzer accessed through the course management system MyMathLab. Access is gained by purchasing an access code through the bookstore or online at www.mymathlab.com

Information on registering can be found here: http://pearsonmylabandmastering.com/students/

The course ID for our Math 30 class is: powell49117

Time Commitment: <u>Expect to spend between 12 – 16 hours per week on</u> <u>this class.</u> Two hours are spent in the classroom each week and the rest of the time will be split between the Online Work and the Homework assignments.

Online Work – The online work consists of Reading the ebook OR watching the author lectures from the ebook (do one or the other, you do not need to do both), AND watching the instructor mini lectures and taking notes in a notebook that will be turned in each Friday in class.

Homework: The online homework will consist of completing problem sets in MyMathLab called "Practice Problems". There are prerequisites for each MML homework set so do not wait until the day the homework is due to begin the section. Online Homework for the week MUST be completed before class on Friday to receive full credit It is usually due by 11:59pm the Thursday before class. Homework can be completed after the deadline for partial credit. Paper homework will be assigned each week in class. These assignments are referred to as Problem Sets (PS) and will be due the next Friday at the beginning of class.

Classwork: Each week in the classroom, <u>after turning in your online</u> <u>lecture notes</u>, we will work through a guided notebook that will help you to complete your written homework. 13 Problem Sets (PS) will be assigned a throughout the semester, 4 quizzes will be taken, and there will be 2 tests and a final exam. Problem Sets and Quizzes may not be made up. If you cannot make the class, you can turn a problem set in early or give it to a friend to turn in for you. The lowest two Problem Sets will be dropped, and the lowest quiz grade will be dropped. Tests may only be made up for medical emergencies with appropriate documentation. No test scores will be dropped. If you know ahead of time that you will not be able to take a Test on the testing date, contact me to make arrangements to take the test early. <u>None of the classroom assignments are accepted late.</u>

| WEEK | Online work | Homework | Classwork |
|-------------|-----------------------------------|---------------------------|--------------------------------------|
| | MML Lectures | MML Practice | |
| 8/19 - 8/23 | MML Prealgebra Review Lectures | Prealgebra Skills Test | Problem Set (PS) 1: Prealg Review |
| 8/26-8/30 | Sec 2.4 -2.7 | Sec 2.4 -2.7 | PS 1 DUE |
| | | | PS 2: 2.4 – 2.7 |
| 9/2-9/6 | Sec 3.1 – 3.2 | Sec 3.1 – 3.2 | PS 2 DUE |
| | | Practice Quiz 1 | Quiz 1 PS3: 3.1 - 2 |
| 9/9-9/13 | Sec 3.3 – 3.5 | Sec 3.3 – 3.5 | PS 3 DUE |
| | | | PS 4: 3.3 – 5 |
| 9/16-9/20 | Sec 4.1 – 4.3 | Sec 4.1 – 4.3 | PS 4 DUE |
| | | Practice Quiz 2 | Quiz 2 , PS 5: 4.1 -3 |
| 9/23-9/27 | Sec 4.4 | Sec 4.4 | PS 5 DUE |
| | | | PS 6: Chapter 4 |
| 9/30-10/4 | Sec 5.1 – 5.3 | Sec 5.1 – 5.3 | PS6 DUE |
| | | Test 1 Review | Test 1 |

Course Outline:

| 10/7-10/11 | Sec 5.4 – 5.6 | Sec 5.4 – 5.6 | PS 7: 5.1 – 4 |
|-------------|---------------|-----------------|-------------------------------|
| 10/14-10/18 | Sec 5.7 – 6.1 | Sec 5.7 – 6.1 | PS 7 DUE |
| | | Practice Quiz 3 | PS 8: Chapter 5 |
| 10/21-10/25 | Sec 6.2 – 6.4 | Sec 6.2 – 6.4 | PS 8 DUE |
| | | | Quiz 3 , PS 9: 6.1 - 3 |
| 10/28-11/1 | Sec 6.5 – 6.6 | Sec 6.5 – 6.6 | PS 9 DUE |
| | | | PS 10: Chapter 6 |
| 11/4-11/8 | | Test 2 Review | PS 10 DUE |
| | | | Test 2 |
| 11/9-11/15 | Sec 7.1 – 7.3 | Sec 7.1 – 7.3 | PS 11: 7.1 – 3 |
| 11/18-11/22 | Sec 7.4 – 7.6 | Sec 7.1 – 7.6 | PS 11 DUE |
| | | | PS 12: 7.4 - 6 |
| 11/25-11/29 | Sec 7.7 | Sec 7.7 | Happy Turkey Day |
| 12/2-12/6 | Sec 7.8 | Sec 7.8 | PS12 DUE |
| | | | PS 13: 7.7-7.8 |
| | | | Final Exam Review |
| 12/9-12/13 | | | PS 13 DUE |
| | | | Final Exam |