Course Prefix/Number/Title: Math 103 College Algebra

Number of Credits: 4 college credits, ½ high school credit

Course Description: This course will cover topics including, but not limited to: relations and functions; equations and inequalities; complex numbers; polynomials; rational numbers; exponential and logarithmic functions; and systems of equations.

Pre-/Co-requisites: ACT score or Accuplacer score

Course Objectives:

 1) Students will demonstrate an understanding of relations and functions.
2) Students will be able to work with equations and inequalities.
3) Students will be able to work with complex numbers.
4) Students will be able to work with rational and polynomial expressions.
5) Students will be successful in working with exponential and logarithmic functions.
6) Students will be able to solve systems of linear equations.
7) Students will create and use matrices to solve systems of equations.

The student will be introduced to the topics above which require certain techniques for solutions. We will develop ideas and methods for applying these techniques leading to a solution or resolution of the question. During the course, the student will be exposed to the use and application of the graphing calculator in the appropriate areas.

Instructor: Miss Vollmer

Office: Room 6

Office Hours: 5th Hour

Phone: (701) 362-7426

Email: tara.vollmer@k12.nd.us

Lecture/Lab Schedule: 9:20 – 10:07 am, 4 days per week

Textbook(s): College Algebra 10th Edition by Ron Larson
        eTextbook and access to WebAssign

Course Requirements:

The sequential nature of mathematics deems it necessary for students to attend class on a regular basis; therefore, one of the course requirements is regular attendance. Grades will be based on exams using the following scale:

A = 90%-100%
B = 80%-89%
C = 70%-79%
D = 60%-69%
F = 0%-59%

Exams cannot be made up without special permission from the professor.

Final grade will be calculated based on total points.

Tentative Course Outline:

- Equations, Inequalities and Mathematical Modeling
- Functions and their Graphs
- Polynomial Functions
- Rational Functions and Conics
- Exponential and Logarithmic Functions
- Systems of Equations and Inequalities
- Matrices and Determinants
- Sequences, Series and Probability

General Education Competency/Learning Outcome(s) OR CTE Competency/Department Learning Outcome(s):

Competency Goal 3: Demonstrates the ability to solve a variety of mathematical problems
Learning Outcome 1: Utilizes mathematical skills to solve problems
Performance indicator 1: solves problems using an approporiate method
Performance indicator 2: produces graphs

Classroom Policies:

Please refrain from any behaviors that would disrupt class. Cell phones should be put on silent and put away.

Student Email Policy:

Dakota College at Bottineau is increasingly dependent upon email as an official form of communication. A student's campus-assigned email address will be the only one recognized by the Campus for official mailings. The liability for missing or not acting upon important information conveyed via campus email rests with the student.

Academic Integrity:

According to the DCB Student Handbook, students are responsible for submitting their own work. Students who cooperate on oral or written examinations or work without authorization share the responsibility for violation of academic principles, and the students are subject to disciplinary action even when one of the students is not enrolled in the course where the violation occurred. The Code detailed in the Academic Honesty/Dishonesty section of the Student Handbook will serve as the guideline for cases where cheating, plagiarism or other academic improprieties have occurred.

Disabilities or Special Needs:

Students with disabilities or special needs (academic or otherwise) are encouraged to contact the instructor and Disability Support Services.

Title IX:

Dakota College at Bottineau (DCB) faculty are committed to helping create a safe learning environment for all students and for the College as a whole. Please be aware that all DCB employees (other than those designated as confidential resources such as advocates, counselors, clergy and healthcare providers) are required to report information about such discrimination and harassment to the College Title IX Coordinator. This means that if a student tells a faculty member about a situation of sexual harassment or sexual violence, or other related misconduct, the faculty member must share that information with the College's Title IX Coordinator. Students wishing to speak to a confidential employee who does not have this reporting responsibility can find a list of resources on the DCB Title IX webpage.