

## **Dakota College at Bottineau Course Syllabus**

### **Course Prefix/Number/Title:**

Math 103 College Algebra, 4 credits

### **Course Description:**

Relations and functions, equations and inequalities, complex numbers; polynomial, rational, exponential and logarithmic functions and systems of equations.

### **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:**

Steve Dockter

### **Office:**

Kindred High School Room 138

### **Email:**

Steve.dockter@k12.nd.us

### **Lecture:**

Periods 1 and 7 at Kindred High School

**Textbook/Calculator:**

College Algebra 5e by James Stewart, Lothar Redlin, Saleem Watson, Brooks/Cole, 2009  
TI-84 Series or TI-Inspire.

**Supplemental Textbook:**

Advanced Mathematics: Saxon 2<sup>nd</sup> edition by John H. Saxon, Jr, 2003

**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. Exams cannot be made up without special permission from the professor. FINAL EXAM WILL BE GIVEN DURING THE SCHEDULED TIME.

A = 94-100%

B = 85-93%

C = 77-84%

D = 70-76%

F = 70-0%

**General Education Goals/Objectives:****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 appropriate method
- Performance Indicator 2: Produces graphs