

**Course Prefix/Number/Title:**

Math 103 College Algebra

**Credits:** 4

**Course Description:**

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

**Prerequisites:**

ASC 93 with a C or higher or equivalent course, or appropriate Math Placement Test 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.

**Instructor:**

Scott Johnson

**Office:**

Online

**Office Hours:**

Online

**Phone:**

(701)-228-5474

**Email:**

scott.allen.johnson@dakotacollege.edu

## Lecture/Lab Schedule:

Online

## Textbook:

MyMathLab access code with access to *College Algebra: Graphs and Models*. 6th edition by Bittinger, Beecher, Ellenbogen, and Penna.

Order online through Pearson or email at [bookstore@dakotacollege.edu](mailto:bookstore@dakotacollege.edu) , or by calling (701) 228-5458

## Course Requirements:

The sequential nature of mathematics deems it necessary for students to continually work on assigned tasks in MyMathLab. Grades will be assigned using the following.

### Homework: 30%

Section Homework will be submitted after each section in MyMathLab and can be found under the homework tab in MyMathLab. You may work ahead, but each homework assignment should be completed by the due date listed in order to stay on track in the course. There is no limit to the number of times you can complete a homework assignment and homework assignments have a final due date of midnight the night before the final exam.

### Chapter Quizzes: 20%

Chapter quizzes are to be completed at the end of each chapter. You will get two chances per problem on each chapter quiz.

### Mid-Term and Final Exam: 50%

Two proctored tests are administered over the sixteen-week term (eight weeks if this is a summer course). Students are allowed one attempt on each test and will need to utilize ProctorU or an approved proctor to take the test. Scheduling tests with ProctorU should be taken at least ONE WEEK prior to the proctored exam. You can find information on ProctorU in Blackboard or an approved proctor can be used. **There will be no make ups on the mid-term and final exam.**

A = 90-100%

B = 80-89%

C = 70-79%

D = 60-69%

F = 59-0%

## Tentative Course Outline:

Equations and Inequalities

Coordinates and Graphs

Functions

Polynomial and Rational Functions

Exponential and Logarithmic Functions

Systems of Linear Equations and Matrices

**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

Learning Outcome 2: Employs critical thinking skills to solve problems

**Relationship to Campus Focus:**

The student will use the graphing calculator to model application problems in nature, economics, science, psychology, etc. Communication with others will be emphasized.

**Classroom Policies:**

Please refrain from any behavior that would disrupt the class. Cell phones can only be used in emergency situations and they must be turned to vibrate. The academic environment is an open and harassment free environment. Participation is encouraged.

**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.