

**Course Prefix/Number/Title:** MATH 103 College Algebra

**Number of Credits:** 4

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

**Pre-/Co-requisites:** ACT score of 21 or higher

**Course Objectives:** Upon completion of the course the learner will be able to

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.

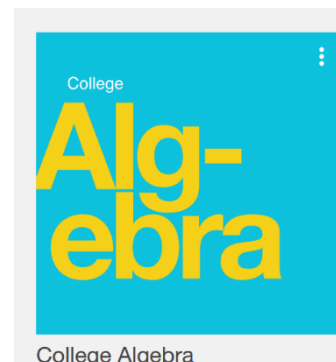
**Instructor:** Erin Hauglid

**Office Hours:** MTWTh 3:10-4 or by appointment

**Email:** erin.hauglid@k12.nd.us

**Lecture Schedule:** M-F 1:26-2:16

**Textbook:** OpenStax *College Algebra* by Jay Abramson



**Course Requirements:**

It is important that you attend class regularly, take notes, ask questions, and complete the homework as assigned. If you are absent for any reason, it is your responsibility to get notes from a classmate/read textbook. You will be working with classmates throughout the semester on practice problems, but you ultimately need to complete quizzes and tests individually. Homework is strictly practice and will not be issued a grade. However, the quizzes you take will be based on the assigned homework problems. It is to your advantage to practice the homework problems in preparation for the quizzes. Tests will be given at the end of each chapter. Your grade is weighted 30% quiz scores and 70% test scores. The final exam will be worth 10% of your semester grade.

**Grading Scale:**

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

### Tentative Course Outline:

<b>Chapter</b>	<b>Topics</b>	<b>Dates</b>
Chapter 1 Sections 1.1-1.6	Review material	Week 1
Chapter 2 Sections 2.1-2.7	Equations and Inequalities	Weeks 2-3
Chapter 3 Sections 3.1-3.7	Functions	Weeks 4-5
Chapter 4 Sections 4.1-4.3	Linear Functions	Week 6
Chapter 5 Sections 5.1-5.8	Polynomial and Rational Functions	Weeks 7-9
Chapter 6 Sections 6.1-6.8	Exponential and Logarithmic Functions	Weeks 10-12
Chapter 7 Sections 7.1-7.8	Systems of Equations, inequalities, and matrices	Weeks 13-16

### 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:

- No cell phones
- Respect others, as well as yourself and property
- Make up work is to be done in a timely fashion.
- Participation is a requirement. You get out of class what you put into it.
- Bring all necessary materials to class (Surface, calculator, notebook, and pencil)

### 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.