



# MATH 103 - College Algebra

4 credits

Instructor: Tracy Chisholm

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

**Prerequisite:** ASC 93 Algebra Prep III, placement by math placement test or instructor approval.

## 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.

**Class Schedule:** MTWF 10:59-11:44 am

Monday	Tuesday	Wednesday	Thursday	Friday
NSC 105	NSC 105	NSC 105		NSC 105
10:59-11:44am	10:59-11:44am	10:59-11:44am		10:59-11:44am

**Instructor:** Tracy Chisholm

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*Office Hours:* Mon-Wed, Fri 3-4pm or by appointment

## Tentative Course Outline:

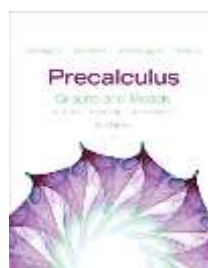
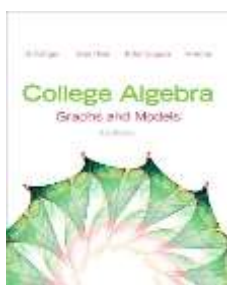
<b>Chapter</b>	<b>Topics</b>	<b>Dates</b>
Chapter 1 Sections 1.1-1.6	Graphs, Functions, and Models	Weeks 1-4
Chapter 2 Sections 2.1-2.6	More on Functions	Weeks 4-7
Chapter 3 Sections 3.1-3.5	Quadratic Functions and Equations; Inequalities	Weeks 7-9
Chapter 4 Sections 4.1-4.6	Polynomial Functions and Rational Functions	Weeks 9-12
Chapter 5 Sections 5.1-5.6	Exponential Functions and Logarithmic Functions	Weeks 12-14
Chapter 6 Sections 6.1-6.4, 6.7	Systems of Equations and Matrices	Weeks 15-16

**My final is: Friday, December 13**

**Required Text:** *College Algebra: Graphs and Models 5<sup>th</sup> Edition* by Bittinger, Beecher, Ellenbogen and Penna with MyMathLab online learning software. Pearson Publishing.

OR

*Precalculus Graphs and Models 5<sup>th</sup> Edition* by Bittinger, Beecher, Ellenbogen and Penna with MyMathLab online learning software. Pearson Publishing.



## 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. Learning algebra is an investment of time. Algebra is learned best by practice, reflect, and practice some more. Understanding the examples provided by the instructor and textbook is a good first step. However, to truly know the material, you should be able to look at a problem, know how to proceed, and carry out the steps **WITHOUT ASSISTANCE**. The independent practice and graded homework provide opportunities for you to get to that point. Passing grades on quizzes and tests demonstrate that you have indeed learned the skills taught.

**Homework Assignments:** All homework assignments will be done in MyMathLab. These are graded assignments that can be done multiple times. Only the highest score will be used. These assignments close at 11:59 PM, Central Daylight Time on the night before the corresponding chapter test. Do the work well in advance. If the assignment is done after the posted due date, 30% will be deducted from your score.

**Tests:** Six graded tests are administered over the semester. Students are allowed one attempt on each test and must be completed in one sitting. If a student leaves the classroom during a test, the test will be collected and graded. Tests must be taken on the day they are given or previous arrangements must be made prior to the test day. **If you miss an exam you must contact me within 24 hours of the missed exam to arrange for a time to make up the exam. Exams must be made up within 72 hours of the original exam time. If you do not contact me within 24 hours, a grade of 0 will be entered for the exam that was missed. Students are only allowed to make up ONE exam per course. The exam grade will be docked 10% per day for late points. Cheating on tests will not be tolerated. If you are caught cheating, that will result in an automatic 0 for the exam.**



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

### Classroom Policies:

- Respect is to be shown towards the instructor and fellow students in the classroom.
- Attendance and participation is expected. You are responsible for the activities of each class period. If you know of a conflict ahead of time, you are welcome to submit assignments early.
- Show up to class on time and be prepared (pencil, notebook, calculator, etc).
- Cell phones and all other electronics should be off/silenced and put away. You will be asked once to put the phone away, if asked again you will be asked to leave.
- **Do NOT wear headphones during class or tests. They are not allowed.**

**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.

## **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

Learning Outcome 2: Employs critical thinking skills to solve problems

- Performance Indicator 1: Interprets research information
- Performance Indicator 2: Write conclusions from information collected
- Performance Indicator 3: Utilizes pertinent information to provide reasonable answers to word problems.

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

**Academic Integrity:** The academic community is operated on the basis of honesty, integrity and fair play. It is the expectation that all students, as members of the college community, adhere to the highest levels of academic integrity. This means that:

- Students are responsible for submitting their own work. Student work must not be plagiarized.
- Students must not cooperate on oral or written examinations or work together on evaluated assignments without authorization.
- Cheating will not be tolerated. Any student found to be cheating will receive a 0 on the assignment; an additional incidence of cheating will result in the student being dismissed from the course.

**Disabilities and Special Needs:** If you have a disability for which you need accommodation, please let me know as soon as possible. You can also contact the Disability Service coordinator at 701-228-5672.

The syllabus is a living document that is subject to change. Students will be informed of any changes.