MATH 103 - College Algebra

4 credits
Instructor: Tracy Chisholm

Course Description: This course covers the following topics:

- Linear and Quadratic Equations
- Radicals
- Exponents and Logarithms
- Rational Expressions
- Systems of Linear Equations
- Functional Notation
- Graphing Functions

Prerequisite: MATH 102 Intermediate Algebra, placement by math placement test or instructor approval.

Course Objectives: 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 graphics calculator in the appropriate areas.

Class Schedule: MTRF 7:45am - 8:35am

Monday	Tuesday	Wednesday	Thursday	Friday
Thatcher 2212	Thatcher 2212		Thatcher 2212	Thatcher 2212
7:45am-8:35am	7:45am-8:35am		7:45am-8:35am	7:45am-8:35am

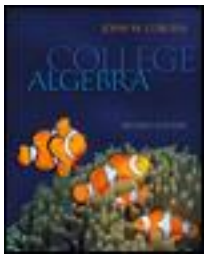
Instructor: Tracy Chisholm

Office: Thatcher 1104, Learning Center – main floor of Thatcher Hall
Phone: (701) 228-5601
E-mail: tracy.chisholm@dakotacollege.edu
Office Hours: Students are welcome to visit me in my office at any time outside of class. I do not have designated office hours as this is the only class I teach on campus.

Tentative Course Outline:

	Topics	***Module Due***	***Assessment Due***
Module 1	Properties of Real Numbers, Algebraic Expressions, Exponents, Factoring Polynomials	Sept. 4	Sept. 6
Module 2	Radicals & Rational Expressions	Sept. 11	Sept. 13
Module 3	Linear Equations & Inequalities, Absolute Value Equations & Inequalities, Complex Numbers	Sept. 18	Sept. 20
TEST: September 20, 2012			
Module 4	Solving Quadratic Equations, Solving Other Types of Equations	Sept. 25	Sept. 27
Module 5	Graphing Linear Equations, Rectangular Coordinates, Linear Graphs and Rates of Change	Oct. 2	Oct. 4
Module 6	Functions, Function Notation, Graphs of a Function	Oct. 9	Oct. 11
MIDTERM EXAM: October 12, 2012			
Module 7	Toolbox Functions & Transformations, Piecewise-defined Functions	Oct. 23	Oct. 25
Module 8	Quadratic Functions, Synthetic Division	Oct. 30	Nov. 1
Module 9	Zeroes of Polynomial Functions, Graphing Polynomial & Rational Functions	Nov. 6	Nov. 8
TEST: November 8, 2012			
Module 10	One-to-one & Inverse Functions, Exponential Functions, Logarithms & Logarithmic Functions	Nov. 13	Nov. 15
Module 11	Properties of Logarithms, Solving Exponential Logarithmic Equations	Nov. 23	Nov. 26
Module 12	Linear Systems in Two Variables, Nonlinear Systems of Equations & Inequalities	Dec. 3	Dec. 4
FINAL EXAM: December 6, 2012			

Required Text: *College Algebra 2nd Edition* by John W. Coburn with ALEKS online learning software; McGraw Hill Publishing



ALEKS Learning Software Website: www.aleks.com

ISBN: 0077419774

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 completion of the ALEKS MyPie Modules, 4 exams, and progress assessments in ALEKS.

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

General Education Goals/Objectives:

- Goal 2: Demonstrates knowledge and application of technology.
  - Objective 2: Uses electronic resources for course related assignments and information
    - Skill 1: Selects appropriate program on the graphing calculator to solve problems

- Goal 3: Demonstrates the ability to convert, calculate, and analyze a variety of mathematical problems
  - Objective 1: Utilizes mathematical equations to solve problems
    - Skill1: Solves equations and problems using the appropriate method
  - Objective 2: Applies practical application of mathematics to everyday life
    - Skill3: Solves 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.

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.

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.
- If there is evidence of cheating on an exam the student will receive an F on the respective exam.

Disabilities and Special Needs: If you have a disability for which you need accommodation, contact the Learning Center to request disability support services: phone 701-228-5477 or toll-free 1-888-918-5623.