



## **Dual Credit MATH 103 – College Algebra**

3 credits

Instructor: Patsy Schlosser, Edgeley High School

### **Course Description:**

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

**Pre-/Co-requisites:** appropriate ACT or Acuplacer score

### **Course Objectives:**

1. Students will demonstrate an understanding of relations and functions as evidenced by classroom activities and objective tests
2. Students will be able to work with equations and inequalities as evidenced by classroom activities and objective tests
3. Students will be able to work with complex numbers as evidenced by classroom activities and objective tests
4. Students will be able to work with rational and polynomial expressions as evidenced by classroom activities and objective tests
5. Students will be successful in working with exponential and logarithmic functions as evidenced by classroom activities and objective tests
6. Students will be able to solve systems of linear equations as evidenced by classroom activities and objective tests
7. Students will create and use matrices to solve systems of equations as evidenced by classroom activities and objective tests

**Instructor:** Patsy Schlosser

**Office:** Edgeley High School Room 48

**Office Hours:** 8:15-3:45 M-F

**Phone:** 701-493-2292

**Email:** patsy.schlosser@k12.nd.us

**Lecture/Lab Schedule:** M-F at 12:34-1:24

**Textbook(s):** College Algebra: A Concise Approach by Sisson through Hawkes Learning System

**Course Requirements:** Complete requested lessons, projects, and tests

**Tentative Course Outline:**

- Number Systems and Fundamental Concepts of Algebra
- Equations and Inequalities of One Variable
- Linear Equations and Inequalities of Two Variables
- Relations, Functions, and Their Graphs
- Polynomial Functions
- Exponential and Logarithmic Functions
- Systems of Equations

**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 electronic resources

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

Skill 1: Constructs tables, charts, graphs based on data

Skill 2: Defines and demonstrates the use of decimals, percentages, and fractions

Skill 3: Solves word problems

Objective 3: Employs problem solving and critical thinking skills in order to solve a variety of different problems

Skill 3: Draws conclusions from information collected

Goal 4: Demonstrates effective communication

Objective 2: Reads at a level that allows participation in collegiate studies and chosen careers

Skill 1: Anticipates and understands the structure and organization of written work

Objective 3: Uses information resources effectively

Skill 1: Finds, consults, and uses a variety of information resources

Objective 4: Works collaboratively with others

Skill 1: Participates in class discussions and in any group projects or activities

**Relationship to Campus Theme:**

Students will use an electronic based learning system along with traditional paper/pencil methods.

**Classroom Policies:**

Same as classroom policies for Edgeley High School classes.

**Grading:**

30% of the grade will be taken from the online lessons through the Hawkes Learning System. Each lesson that the student certifies on will count as 100% on that lesson. Students have unlimited attempted to certify on a particular lesson. If certification is not done by the due date, 20% will be taken off for each additional day late. 70% of the course grade will come from paper pencil chapter tests taken in class.

**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:**

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, the student will receive an F on the assignment or exam.

**Disabilities and Special Needs:**

Students with designated disabilities and special needs will receive any modifications mentioned in their documentation.