DAKOTA COLLEGE AT BOTTINEAU

COURSE SYLLABUS

**Course Prefix/Number/Title:** MATH 210 – Elementary Statistics

**Number of Credits:**4

**Course Description:** An introduction to statistical methods of gathering, presenting and analyzing data. Topics include probability distributions, confidence intervals, hypothesis testing, and linear regression and correlation.

**Pre-/Co-requisites:** Students must receive approval from the principal or counselor to enroll in dual credit courses. To enroll for a dual credit course the student must have a "B" or higher cumulative GPA.

**Course Objectives:**

Upon completion of the course the learner will be able to
1. Students will be able to use statistical methods of gathering, presenting and analyzing data
2. Students will be able to work with probability and probability distributions and their applications
3. Students will be able to work with confidence intervals and their applications
4. Students will be able to work with hypothesis testing
5. Students will be able to work with linear regression and correlation and its applications

**Instructor:** Sharon Walker

**Office:** Rugby High School Room A116

**Office Hours:** M – F 8:00 AM to 4:00 PM

**Phone:** (701)776-5201

**Email:** sharon.walker@rugbyschools.org (for students) sharon.walker@k12.nd.us (for staff/parents)

**Lecture/Lab Schedule:** MTF 10:59 to 11:44 and W 1:50-3:20

**Textbook(s):** *Understanding Basic Statistics, Eighth Edition* by Charles Henry Brase and Corrinne Pellillo Brase. Cengage 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.

A = 90-100%
B = 80-89%
C = 70-79% **Powerschool will not post these grades, but final semester grades will reflect this scale**
D = 60-69%
F = 59-0%

**Tentative Course Outline:**
Introduction to collecting, organizing, analyzing and interpreting data
Comparison of methods to perform averages and variation
Correlation and regression
Elementary probability theory

Binomial probability distributions
Normal cuves, standardized scores and sampling distributions
Estimation techniques and confidence intervals
Hypothesis testing

**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 and EXCEL to model application problems in nature, economics, science, psychology, etc. Communication with others will be emphasized.

**Classroom Policies:**
Students will contribute to a student responsibility practice set with each assignment that all should use to check practice work before quizzes and tests. In addition, students will turn in their practice notebooks at the end of each chapter WITH **AT LEAST HALF** OF ALL PROBLEM SETS PRACTICED. All daily work will be shared within Google Classroom. Chapter quizzes, chapter tests and cumulative tests will be given, as well as projects for each section of material. Students will utilize TI graphing calculators, Google Sheets and EXCEL to perform computations. The grading scale is 30% practice work and 70% quizzes/tests.

**Student Email Policy:** Please use Google Classroom and email: sharon.walker@rugbyschools.org
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.