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 and probability distributions, confidence intervals, hypothesis testing, and linear regression and correlation.

Pre-/Co-requisites:
ASC 94 Beginning Algebra with a grade of C or higher, appropriate math placement test score or instructor approval

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: Tracy Chisholm

Office: Nelson Science Center, Room 111

Office Hours: MTWF 3-4pm or by appointment

Phone: (701) 228-5424

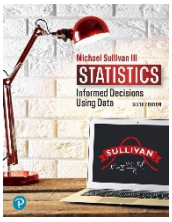
Email: tracy.chisholm@dakotacollege.edu

Lecture/Lab Schedule: MTWF 10-10:50am

Monday	Tuesday	Wednesday	Thursday	Friday
NSC 124	NSC 124	NSC 124		NSC 124
10-10:50am	10-10:50am	10-10:50am		10-10:50am

Textbook(s):

Optional: *Statistics: Informed Decisions Using Data, Sixth Edition* by Michael Sullivan, III Pearson Publishing.



Required: *MyMathLab Learning Software*

You will also want a TI-83 or TI-84 graphing calculator

Course Requirements:

Daily attendance is expected and can influence your grade. Learning any type of math is an investment of time. It takes place through participation and engagement in the material and the course; thus, it is essential that you attend and actively participate in class. You cannot recreate what happens in class. You need to come to class prepared, get involved, work in your group, treat others as you would want to be treated, and bring a positive attitude and strong work ethic.

Homework: Homework and other activities in which you practice and apply the concepts of the course are important. It is important for you to read and do the homework on a regular basis. There will be problems assigned for each section in MyStatLab. Assignments close at 11:59 PM, CDT on the night before the corresponding test. The assignments are the minimum amount of homework you should complete. If you need to do more problems to understand the material, then you should do so.

The MyStatLab site is loaded with tools to help you learn – videos, animations, online version of the book, StatCrunch (the statistical software linked with MyStatLab), a calculator, and other materials. Use these materials to you advantage. When working on homework problems, you will notice icons on the side; you can click on these to directly bring you to the resources related to that section of the book.

Lab Activities: Most chapters will include some sort of lab activity. These are done in class and cannot be made up.

Tests: Approximately nine 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.***

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

Tentative Course Outline:

Chapter	*Topic*	*Dates*
Chapter 1	Data Collection	Weeks 1-2
Chapter 2	Organizing and Summarizing Data	Weeks 2-3
Chapter 3	Numerically Summarizing Data	Weeks 3-4
Chapter 4	Describing the Relation between Two Variables	Weeks 4-5
Chapter 5	Probability	Weeks 6-7
Chapter 6	Discrete Probability Distributions	Weeks 7-8
Chapter 7	The Normal Probability Distribution	Weeks 8-9
Chapter 8	Sampling Distributions	Week 10
Chapter 9	Estimating the Value of a Parameter	Weeks 10-11
Chapter 10	Hypothesis Tests Regarding a Parameter	Weeks 12-13
Chapter 11	Inferences on Two Samples	Weeks 14-15
Chapter 12	Inference on Categorical Data	Week 15
Chapter 13	Comparing Three or More Means	Week 16

General Education Competency/Learning Outcome(s) OR CTE Competency/Department Learning Outcome(s):
Competency 3: Demonstrates mathematical understanding
Learning Outcome 1: Utilizes appropriate mathematical techniques
Learning Outcome 2: Employs critical thinking skills

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

Classroom Policies:

- 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 should be off/silenced and put away. Computers and tablets are welcome in the classroom for note-taking purposes only. If students abuse this privilege, the instructor reserves the right to ban computers from the lecture periods.

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.

AI Student Policy:
Unless otherwise indicated in the course syllabus, or in individual instructions for course assignments, or in the absence of the express consent of the course instructor, students are not allowed to utilize generative AI to help produce any of their academic work. Any violation of this policy will be considered an act of academic dishonesty as outlined within the Dakota College Code of Student Life.

RESPONSIBILITIES

Students	• Responsible to follow the syllabus and assignment instructions regarding use of generative AI for all academic work. • Obtain permission of the instructor prior to the use of generative AI that is outside of the syllabus or assignment instructions. Provide appropriate rationale for how the use of generative AI will enhance the learning experience for the assignment. • In instances where generative AI is permissible, appropriately cite the generative AI program used and indicate where in the assignment it was used, in a brief submission statement.
Faculty	• Determine if the use of generative AI could enhance student learning in any assignment of project. • Clearly indicate in all course syllabi if generative AI is allowable for any academic work. • If allowable, give specific parameters for how and when generative AI may be used. • If a violation of generative AI for the individual course/syllabus is suspected, discuss the concern with the student. If violation is still suspected, inform the appropriate semester coordinator/program director.