DAKOTA COLLEGE AT BOTTINEAU

COURSE SYLLABUS

Course Prefix/Number/Title:

Math 107 Precalculus,

Credits:

4

Course Description: Equations and inequalities, polynomial, rational, exponential, logarithmic, trigonometric and inverse trigonometric functions; trigonometric identities and equations and applications.

Prerequisite: ASC 93, ASC 94, 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 be able to work with angular measure in degrees and radians.
8. Students will be able to work with trigonometric and inverse trigonometric functions.
9. Students will be able to use trigonometric identities.
10. Students will be able to solve trigonometric equations.
11. Students will demonstrate an understanding of how to solve real world problems using trigonometry.

Class Schedule: Online

Instructor:

Scott Johnson

Office:

NSC 110

Office Hours:
Online

Phone:

701-228-5474

E-mail:

Scott.Allen.Johnson@dakotacollege.edu

Lecture/Lab Schedule:

Online

Textbook:

Required Text: MyMathlab, *Precalculus: Graphs and Models, A Right Triangle Approach, Digital Update 6th Edition* by Bittinger, Beecher, Ellenbogen & Penna. Pearson Publishing.

Tentative Course Outline:

Chapter	***Topics***	***Timeline***
Chapters 1-4	Review Functions	Week 1
Chapter 5 Sections 5.1-5.6	Exponential Functions and Logarithmic Functions	Week 2-4
Chapter 6 Sections 6.1-6.6	The Trigonometric Functions	Week 4-7
Chapter 7 Sections 7.1-7.5	Trigonometric Identities, Inverse Functions, and Equations	Week 8-9
Chapter 8 Sections 8.1-8.6	Applications of Trigonometry	Week 10-12
Chapter 10 Sections 10.1-10.4, 10.7?	Analytic Geometry Topics	Week 13-14
Chapter 11 Sections 11.1-11.3	Sequences, Series, and Combinatorics	Week 15-16

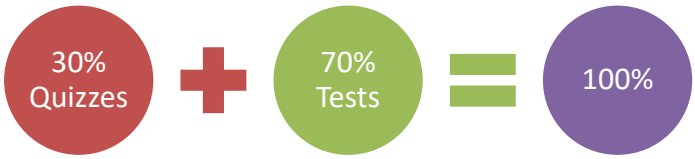
Course Requirements:

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 math is an investment of time. Math 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 problems 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.***

******For students taking this class from a distance, quizzes and tests must be scanned and emailed immediately after class.******



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

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

Learning Outcome 2: Employs critical thinking skills to solve 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.

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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.