

Dakota College at Bottineau Course Syllabus

Course Prefix/Number/Title:

Math 105 Trigonometry, 3 credits

Course Description:

Angle measure, trigonometric and inverse trigonometric functions, trigonometric identities and equations, parametric and polar coordinates, and general applications. Prerequisite: Math 103 or placement test

Course Objectives:

1. Students will be able to work with angular measure in degrees and radians as evidenced by classroom activities and objective tests
2. Students will be able to work with trigonometric and inverse trigonometric functions as evidenced by classroom activities and objective tests
3. Students will be able to use trigonometric identities as evidenced by classroom activities and objective tests
4. Students will be able to solve trigonometric equations as evidenced by classroom activities and objective tests
5. Students will demonstrate an understanding of how to solve real world problems using trigonometry as evidenced by classroom activities and objective tests
6. Students will be able to graph equations and polar coordinates.

Instructor:

Scott Johnson

Office:

Nelson Science Center 110

Office Hours:

MWF 2:00-3:00

Phone:

(701)-228-5474

Email:

scott.johnson@dakotacollege.edu

Lecture:

MWF 1:00-1:50

Textbook/Calculator:

Trigonometry by John D. Baley and Gary Sarell, 3rd edition. McGraw Hill Publishing, 2003.

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 exams and selected homework assignments using the following scale. FINAL EXAM WILL BE GIVEN DURING THE SCHEDULED TIME.

A = 90-100%

B = 80-89%

C = 70-79%

D = 60-69%

F = B 59-0%

Tentative Course Outline:

CH 1 The Measurement of Angles, Arcs, and Sectors

CH 2 The Trigonometric Functions

CH 3 Graphs of the Trigonometric Functions

CH 4 The Inverse Trigonometric Functions

CH 5 Trigonometric Equations

CH 6 Oblique Triangles and Vectors

CH 7 Complex Numbers and Polar Coordinates

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

- Performance Indicator 1: Solves problems using an appropriate method
- Performance Indicator 2: Produces graphs

Learning Outcome 2: Employs Critical thinking skills to solve problems

- Performance Indicator 1: Interprets research information
- Performance Indicator 2: Writes conclusions from information collected
- Performance indicator 3: Utilizes pertinent information to provide reasonable answers to word problems

Relationship to Campus Theme:

Mathematics 105 emphasizes technology through the use of graphic calculators and graphing applications.

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:

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

Disabilities and Special Needs:

If you have a disability for which you will need accommodation, contact the Learning Center to request disability support services at Thatcher Hall 1104; phone 701-228-5477 or toll free 1-888-918-5623.

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.