



Course Title: Intermediate Algebra

Course #: Math 1215

Credit Hours: 4

Semester: Spring 2022

Faculty: Bruce Lewis

E-mail: blewis@navajotech.edu

Office Hours: Monday and Wednesday 1pm-2pm, Tuesday and Thursday 9am-10am

Preferred Communication: Email

Modality: In-person

Class Location and Meeting Times: Building E, Room 102, Monday and Wednesday at 10am-noon

Required Materials: textbook, notebook with paper, graph paper, ruler

Textbooks: Introductory and Intermediate Algebra (6th edition) by Bittinger, Beecher, and Johnson

Tools: DESMOS graphing calculator phone app

Mission, Vision, and Philosophy

Mission: Navajo Technical University honors Diné culture and language, while educating for the future.

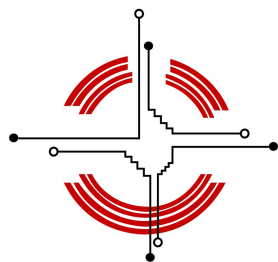
Vision: Navajo Technical University provides an excellent educational experience in a supportive, culturally diverse environment, enabling all community members to grow intellectually, culturally, and economically.

Philosophy: Through the teachings of Nitsáhákees (thinking), Nahátá (planning), Íina (implementing), and Siihasin (reflection), students acquire quality education in diverse fields, while preserving cultural values and gaining economic opportunities.

Course Description

A study of linear and quadratic functions, and an introduction to polynomial, absolute value, rational, radical, exponential, and logarithmic functions. A development of strategies for solving single-variable equations and contextual problems. Prerequisite: A grade of C or better in MATH-113 or equivalent.

Offered: Fall, Spring, Summer, Online.



NITSÁHÁKEES

NÁHAT'Á

'IINÁ

SIIH HASIN

NAVAJO TECHNICAL UNIVERSITY

E S T A B L I S H E D 1 9 7 9

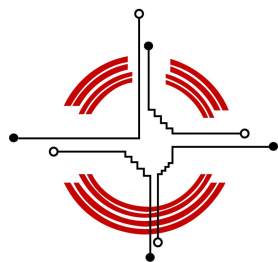
Course Outcomes	Course Assessments
Students will build on their knowledge of linear and quadratic functions and will begin to build an understanding of absolute value, polynomial, rational, power, radical, exponential and logarithmic functions in the following contexts:	Pre-test, weekly quizzes, midterm, and final exam (post-test).
1. Demonstrate appropriate use of basic function language and notation.	
2. Convert between equivalent forms of algebraic expressions.	
3. Solve single-variable equations of the types listed above.	
4. Interpret and communicate algebraic solutions graphically and numerically.	
5. Demonstrate contextual problem-solving skills that include setting up and solving problems, and interpreting solutions in context.	
6. Apply appropriate problem solving methods from among algebraic, graphical, and numerical.	

Connections to Program Assessment (course-embedded measures)

Outcomes: Students should be able to...

Direct measures

1. Demonstrate knowledge of math foundations and context.	Pre and post tests
2. Perform computations in higher mathematics.	Pre and post tests
3. Formulate complete, concise, and correct mathematical proofs.	Pre and post tests
4. Solve real world math related problems.	Pre and post tests



NITSÁHÁKEES

NÁHAT'Á

'IINÁ

SIIH HASIN

NAVAJO TECHNICAL UNIVERSITY

E S T A B L I S H E D 1 9 7 9

Course Activities

Week	Chapters / Reading Assignments	Assignments	Quizzes
1	Chapter 1 – Introduction to the Real Numbers and Algebraic Expression	Chapter 1 lessons	Quiz 1
2	Chapter 2 – Solving Equations and Inequalities	Chapter 2 lessons	Quiz 2
3	Chapter 3 – Graphs of Linear Equations	Chapter 3 lessons	Quiz 3
4-5	Chapter 4 – Polynomials: Operations	Chapter 4 lessons	Quiz 4 & 5
6-7	Chapter 5 – Polynomials: Factoring	Chapter 5 lessons	Quiz 6 & 7
8-9	Chapter 6.- Rational Expressions and Equations	Chapter 6 lessons	Midterm, Quiz 8 & 9
10	Chapter 7.- Graphs, Functions and Applications	Chapter 7 lessons	Quiz 10
11	Chapter 8.- Systems of Equations	Chapter 8 lessons	Quiz 11
12	Chapter 9.- More on Inequalities	Chapter 9 lessons	Quiz 12
13-14	Chapter 10.- Radical Expressions, Equations, and Functions	Chapter 10 lessons	Quiz 13 & Quiz 14
15	Chapter 11.- Quadratic Equations and Functions	Chapter 11 lessons	Quiz 15
16	Review		Final Exam

Grading Plan

Weekly Quizzes	30%	90-100%	A
Midterm Exam	35%	80-89%	B
Final Exam	35%	70-79%	C
		60-69%	D
		Below 60%	F

Grading Policy

Students must do their own work. Cheating and plagiarism are strictly forbidden. Cheating includes (but is not limited to) plagiarism, submission of work that is not one's own, submission or use of falsified data, unauthorized access to exams or assignments, use of unauthorized material during an exam, or supplying or communicating unauthorized information for assignments or exams.

Participation

Students are expected to attend and participate in all class activities. Points will be given to students who actively participate in class activities including guest speakers, field trips, laboratories, and all other classroom events.

Cell phone and headphone use

Please turn cell phones off **before** coming to class. Cell phone courtesy is essential to quality classroom learning. Headphones must be removed before coming to class.

Navajo Technical University • P.O. Box 849 • Lower Point Road HWY, 371 • Crownpoint, NM 87313

Ph# (505) 387-7401 • Fax# (505) 786-5644

www.navajotech.edu



Attendance Policy

Students are expected to attend all class sessions. If more than ten minutes late, students will be counted as absent. A percentage of the student's grade will be based on class attendance and participation. Absence from class, regardless of the reason, does not relieve the student of responsibility to complete all course work by required deadlines. Furthermore, it is the student's responsibility to obtain notes, handouts, and any other information covered when absent from class and to arrange to make up any in-class assignments or tests if permitted by the instructor. Incomplete or missing assignments will necessarily affect the student's grades. Instructors will report excessive and/or unexplained absences to the Counseling Department for investigation and potential intervention. **Instructors may drop students from the class after three (3) absences unless prior arrangements are made with the instructor to make up work and the instructor deems any excuse acceptable.**

Study Time Outside of Class for Face-to-Face Courses

For every credit hour in class, a student is expected to spend two hours outside of class studying course materials.

Academic Integrity

Integrity (honesty) is expected of every student in all academic work. The guiding principle of academic integrity is that a student's submitted work must be the student's own. Students who engage in academic dishonesty diminish their education and bring discredit to the University community. Avoid situations likely to compromise academic integrity such as: cheating, facilitating academic dishonesty, and plagiarism; modifying academic work to obtain additional credit in the same class unless approved in advance by the instructor, failure to observe rules of academic integrity established by the instructor. **The use of another person's ideas or work claimed as your own without acknowledging the original source is known as plagiarism and is prohibited.**

Diné Philosophy of Education

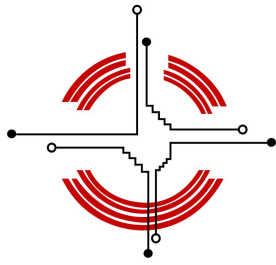
The Diné Philosophy of Education (DPE) is incorporated into every class for students to become aware of and to understand the significance of the four Diné philosophical elements, including its affiliation with the four directions, four sacred mountains, the four set of thought processes and so forth: Nitsáhákees, Nahát'á, Íina and Siih Hasin which are essential and relevant to self-identity, respect and wisdom to achieve career goals successfully.

Students with Disabilities

Navajo Technical University is committed to serving all students in a non-discriminatory and accommodating manner. Any student who feels that she or he may need special accommodations should contact the Accommodations Office (<http://www.navajotech.edu/student-services#accommodations-services>) in accordance with the university's Disability Accommodations Policy (see http://www.navajotech.edu/images/about/policiesDocs/Disability_Exhibit-A_6-26-2018.pdf).

Email Address

Students are required to use NTU's email address for all communications with faculty and staff.



NITSÁHÁKEES

NÁHAT'Á

'IINÁ

SIIH HASIN

NAVAJO TECHNICAL UNIVERSITY

E S T A B L I S H E D 1 9 7 9

Final Exam Date: Wednesday May 11 at 10am

Important Dates:

Martin Luther King Holiday is January 17th

Last day to add/drop without a W is January 21

Presidents' Day is February 21

Spring graduation petition is due on February 25

Midterm exams are March 7 to March 11

Spring Break is March 14 to March 18

Last day to withdraw with a W is March 31

Final exams is May 9 to May 12

Spring graduation is on May 13