Navajo Technical University http://www.navajotech.edu
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Course Title: College Algebra
Course #: MTH1220-8
Credit Hours: 4
Semester: Spring 2022
Cap: 10

Faculty: Harrison Lapahie **E-mail**: hlapahie@navajotech.edu
Office: Room # 117 **Office Phone**: (505) 609-5018
Office Hours (face-to-face or online): Mon & Wed: 2 to 4 pm, & at Teec Nos Pos, Fri: 10 – 11 am
Preferred Communication (email and/or text; will respond within 24 hours): Email
Modality (face-to-face, hybrid, or online): Face-to-Face
Class Location and Meeting Times: Rm 117, Tue: 12:00PM TO 4:00PM

Required Materials
Textbooks*: College Algebra, 10th Ed*., Ron Larson, Publishers: Cengage Learning, ISBN-13: 978-1-337-28229-1/ISBN-10: 1-337-28229-4; $225.00.
Tools: 1) Scientific Calculator TI-84 Plus CE. 2) Access to Internet and Laptop required. For students who do not have laptops, NTU IT Department will purchase a laptop and the cost of the laptop will be deducted from their Pell Grant or Scholarship.
Lab Fee (if applicable): None

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), Íína (implementing), and Siihasin (reflection), students acquire quality education in diverse fields, while preserving cultural values and gaining economic opportunities.

Course Description
The study of equations, functions and graphs, reviewing linear and quadratic functions, and concentrating on polynomial, rational, exponential and logarithmic functions. Emphasizes algebraic problem solving skills and graphical representation of functions. The course involves four hours of lecture per week and students must have a command of basic algebraic skills such as factoring and basic equation-solving. Prerequisites: A grade of C or better in MATH1215 or satisfactory placement scores.

Course Outcomes	Course Assessments
Students will learn the rules of Algebra.	Homework, Chapter Tests, Midterm, Final Exam
Students will apply the rules of Algebra.	
Students will learn about Series and Sequences	
To be able to solve Radical Equations, and Powers/Roots problems.	

Course Activities

Week	Date	Class Topics/Reading Due	Assignments Due	Assessments
1	Jan 18-21	1.1 Graphs of Equations	Assigned HW	
	Jan 19-20	**Late Registration w/fee**		
	Jan 21	**Last day to add/drop w/out "W"**		
2	Jan 24-28	1.2 Lines in the Plane 1.3 Linear Modeling & Direct Variation 1.4 Functions	Assigned HW	
3	Jan 31-Feb 4	1.5 Graphs of Functions 1.6 Transformation of Functions 1.7 The Algebra of Functions	Assigned HW	
4	Feb 7-11	1.8 Inverse Functions 2.1 Quadratic Functions & Models 2.2 Polynomial Functions of Higher Degree	Assigned HW	
5	Feb 14-18	1.3 Polynomial Division 1.4 Real Zeros of Polynomial Functions 1.5 Complex Numbers	Assigned HW	Ch 1 Test
6	Feb 21-25	1.6 Fundamental Theorem of Algebra 1.7 Rational Functions 3.1 Exponential Functions	Assigned HW	
	Feb 25	**Graduation Petition due**		
7	Feb 28-Mar 4	3.2 Logarithmic Functions 3.3 Properties of Logarithms 3.4 Solving Exponential & Logarithmic Equations	Assigned HW	Ch 2 Test
8	**Mar 7-11**	**Midterm**		**Midterm**
	Mar 11	**Midterm grades due**		**Midterm**
9	Mar 14-18	3.5 Exponential and Logarithmic Models 4.1 Solving Systems Using Substitution 4.2 Solving Systems Using Elimination	Assigned HW	
10	Mar 21-25	4.3 Linear Systems in 3 or More Variables 4.4 Systems of Inequalities 4.5 Linear Programming	Assigned HW	Ch 3 Test
11	Mar 28-Apr 1	5.1 Matrices and Linear Systems 5.2 Operations with Matrices 5.3 Inverse of a Square Matrix	Assigned HW	Ch 4 Test
	Mar 31	**Last day to withdraw with "W"**		
12	Apr 4-8	5.4 Determinant of a Square Matrix 5.5 Applications of Matrices & Determinants	Assigned HW	
13	Apr 11-15	6.1 Sequences & Summation Notation 6.2 Arithmetic Sequences & Partial Sums	Assigned HW	Ch 5 Test
14	Apr 18-22	6.3 Geometric Sequences & Series 6.4 Binomial Theorem	Assigned HW	
15	Apr 25-29	Catch-up, turn in late assignments		
16	May 2-6	Catch up, turn in late assignments		
17	**May 9-12**	**Final (Tuesday, May 10)**		**Finals**
	May 12	**Grades due to the Registrar**		
	May 13	**Fall Graduation**		

Schedule Disclaimer: The course schedule outlined in the table above is subject to adjustment depending on the needs of the class to focus more on a specific chapter

Grading Plan

Attendance: 7%	A = 100-90%
Homework: 30%	B = 89-80%
Class Participation: 3%	C = 79-70%
Tests: 20%	D = 69-60%
Mid-term: 20%	F = 59% or less
Final Exam: 20%	

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.

Attendance Policy

Students are expected to attend all class sessions. 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.

Study Time for Hybrid or Blended Courses

For a hybrid or blended course of one credit hour, a student is expected to spend three hours per week studying course materials.

Study Time for Online Courses

For an online course of one credit hour, a student is expected to spend four hours per week 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, Íína and Siih Hasin which are essential and relevant to self-identity, respect and wisdom to achieve career goals successfully.

At NTU's Zuni Campus, the A:shiwi Philosophy of Education offers essential elements for helping students develop Indigenous and Western understandings. Yam de bena: dap haydoshna: akkya hon detsemak a:wannikwa da: hon de:tsemak a:ts'umme. *Our language and ceremonies allow our people to maintain strength and knowledge.* A:shiwi core values of hon i:yyułashik'yanna:wa (respect), hon delank'oha:willa:wa (kindness and empathy), hon i:yyayumoła:wa (honesty and trustworthiness), and hon kohoł lewuna:wediyahnan, wan hon kela i:tsemanna (think critically) are central to attaining strength and knowledge. They help learners develop positive self-identity, respect, kindness, and critical thinking skills to achieve life 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#accomodations-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.

Final Exam Date: Tuesday, May 10, 2022.