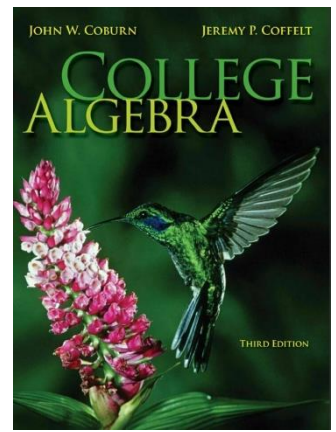




WINDOW ROCK HIGH SCHOOL  
MATH DEPARTMENT  
College Algebra (dual enrollment with NTU)



Navajo Technical University Course Description

**MATH-1220 (4) College Algebra**

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. Prerequisites: A grade of C or better in MATH-1215 or satisfactory placement scores.

| Semester 1                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                         |                                                                                                                                                                                                                                   |                                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| Unit 1<br>Equations and<br>Inequalities                                                                                                                                                                                                                                                                         | Unit 2<br>Graphs and<br>Functions                                                                                                                                                                       | Unit 3<br>Polynomial<br>Functions                                                                                                                                                                                                 | Unit 4<br>Rational<br>Functions                                                                  |
| R.1 Sets<br>R.2 Real numbers<br>1.1 Linear<br>Equations<br>1.3 Complex<br>Numbers<br>1.4 Quadratic<br>Equations<br>1.5 Applications<br>and Modeling with<br>Quadratic<br>Equations<br>1.6 Other Types of<br>Equations and<br>Applications<br>1.7 Inequalities<br>1.8 Abs Value<br>Equations and<br>Inequalities | 2.3 Functions<br>2.4 Linear Functions<br>2.5 Equations of lines<br>and linear models<br>2.6 Graphs of Basic<br>Functions<br>2.7 Graphing<br>Techniques<br>2.8 Function<br>Operations and<br>Composition | R.3 Polynomials<br>R.4 Factoring<br>Polynomials<br>3.1 Quadratic<br>Functions and Models<br>3.2 Synthetic Division<br>3.3 Zeros of<br>Polynomial Functions<br>3.4 Polynomial<br>Functions: Graphs,<br>Applications, and<br>Models | R.5 Rational<br>Expressions<br>3.5 Rational<br>Functions: Graphs,<br>Applications, and<br>Models |

***Schedule Disclaimer:***

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

**Required Materials:**

1. Algebra and Trigonometry Textbook
2. Scientific Calculator
3. Access to internet and laptop required.
4. For students who do not have laptop, WRHS can loan you a laptop please contact Ms. Nozie or Ms. Clement for further information.

## **Grading Plan**

|                |                 |
|----------------|-----------------|
| Exam 50%       | A = 190-100%    |
| Attendance 10% | B = 80-89%      |
| Class work 40% | C = 70-79%      |
|                | D = 60-69%      |
|                | F = 59% or less |

## **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.

## **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.