



College Algebra - Math 1314.42D/43D

Course Syllabus: Spring 2018

“Northeast Texas Community College exists to provide responsible, exemplary learning opportunities.”

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Office Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Online
	1:20-2:10 pm	1:20-2:10 pm	1:20-2:10 pm	1:20-2:10 pm	1:20-2:10 pm	

The information contained in this syllabus is subject to change without notice. Students are expected to be aware of any additional course policies presented by the instructor during the course.

Catalog Course Description (include prerequisites): This course covers the development of the complex number system, solutions of quadratic equations and systems involving quadratics, relations, functions, inverses, ratio, proportion, and variation, theory of equations, progressions, matrices, exponential and logarithmic functions, permutations, combinations, and probability as time permits. Prerequisite: MATH 0305 or its equivalent or an appropriate placement score.

Required Textbook(s):

Blitzer; College Algebra, 7th Edition

Publisher: Pearson, Boston, MA

Recommended Reading(s):

None

Student Learning Outcomes:

Upon successful completion of this course, students will

1314.1 Demonstrate understanding and knowledge of properties of functions, which include domain and range, operations, compositions, and inverses.

1314.2 Recognize and apply polynomial, rational, radical, exponential, and logarithmic functions and solve related equations.

1314.3 Apply graphing techniques of transformations and combinations to common algebraic functions.

1314.4 Use linear mathematical models to problem-solve.

1314.5 Evaluate all roots of higher degree polynomial functions.

1314.6 Recognize, solve and apply systems of linear equations using matrices.

Core Curriculum Purpose and Objectives:

Through the core curriculum, students will gain a foundation of knowledge of human cultures and the physical and natural world; develop principles of personal and social responsibility for living in a diverse world; and advance intellectual and practical skills that are essential for all learning.

Courses in the foundation area of mathematics focus on quantitative literacy in logic, patterns, and relationships. In addition, these courses involve the understanding of key mathematical concepts and the application of appropriate quantitative tools to everyday experience.

College Student Learning Outcomes:

Critical Thinking Skills

CT.1 Students will demonstrate the ability to 1) analyze complex issues, 2) synthesize information, and 3) evaluate the logic, validity, and relevance of data.

Communication Skills

CS.1 Students will effectively develop, interpret and express ideas through written communication.

Empirical and Quantitative Skills

EQS.1 Students will manipulate numerical data or observable facts by organizing and converting relevant information into mathematical or empirical form

EQS.2 Students will analyze numerical data or observable facts by processing information with correct calculations, explicit notations, and appropriate technology.

EQS.3 Students will draw informed conclusions from numerical data or observable facts that are accurate, complete, and relevant to the investigation.

SCANS Skills:

N/A

Course Outline:

- I. Equations and Inequalities
 - A. Linear Equations and Rational Equations
 - B. Quadratic Equations
 - C. Models and Applications

- II. Functions and Graphs
 - A. Linear Functions and Slope
 - B. Transformations of Functions
 - C. Combinations of Functions
 - D. Inverse Functions
 - E. Distance and Midpoint Formulas; Circles

- III. Polynomial and Rational Functions
 - A. Quadratic Functions
 - B. Polynomial Functions and Their Graphs
 - C. Zeros of Polynomial Functions
 - D. Modeling Using Variation

- IV. Exponential and Logarithmic Functions
 - A. Exponential Functions
 - B. Logarithmic Functions
 - C. Properties of Logarithms
 - D. Exponential and Logarithmic Equations
 - E. Exponential Growth and Decay

- V. Systems of Equations and Inequalities
 - A. Systems of Linear Equations in Two Variables
 - B. Systems of Linear Equations in Three Variables

- VI. Matrices and Determinants
 - A. Matrix Solutions to Linear Systems
 - B. Inconsistent and Dependent Systems and Their Applications
 - C. Matrix Operations and Their Applications

Evaluation/Grading Policy:

Test Average	60%
Daily/Homework	20%
Final Exam	20%

TOTAL	100 %

- "A" - 90%
- "B" - 80%
- "C" - 70%
- "D" - 60%
- "F" - Below 60%

There will be no exemptions from the college final.

Tests/Exams:

Chapter Exams will be taken in class on the assigned days.
Final Exam is Comprehensive.

Assignments:

Assignments will be made in class and turned in as specified.

Other Course Requirements

TI-83 Plus Graphing Calculator or equivalent

Student Responsibilities/Expectations:**Dual Credit Information:**

Please remember that this is a college course being offered on the high school campus. Since this is a college course, I am not allowed to give any information to a parent without the written consent of the student. In a dual credit environment, high school students are expected to behave as college students.

Attendance:

Regular and punctual attendance at all classes is expected and necessary for successful completion of course work. Attendance rules for Mount Pleasant High School must be met. Students are expected to take exams and complete assignments as scheduled. No late work is accepted. Any unexcused absence from a test will result in a 0 on the test.

NTCC Academic Honesty Statement:

"Students are expected to complete course work in an honest manner, using their intellects and resources designated as allowable by the course instructor. Students are responsible for addressing questions about allowable resources with the course instructor. NTCC upholds the highest standards of academic integrity. This course will follow the NTCC Academic Honesty policy stated in the Student Handbook."

Academic Ethics

The college expects all students to engage in academic pursuits in a manner that is beyond reproach. Students are expected to maintain complete honesty and integrity in their academic pursuit. Academic dishonesty such as cheating, plagiarism, and collusion is unacceptable and may result in disciplinary action. Refer to the student handbook for more information on this subject.

ADA Statement:

It is the policy of NTCC to provide reasonable accommodations for qualified individuals who are students with disabilities. This College will adhere to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to arrange an appointment with a College counselor to obtain a Request for Accommodations form. For more information, please refer to the NTCC Catalog or Student Handbook.

Family Educational Rights And Privacy Act (FERPA):

The Family Educational Rights and Privacy Act (FERPA) is a federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education. FERPA gives parents certain rights with respect to their children's educational records. These rights transfer to the student when he or she attends a school beyond the high

school level. Students to whom the rights have transferred are considered “eligible students.” In essence, a parent has no legal right to obtain information concerning the child’s college records without the written consent of the student. In compliance with FERPA, information classified as “directory information” may be released to the general public without the written consent of the student unless the student makes a request in writing. Directory information is defined as: the student’s name, permanent address and/or local address, telephone listing, dates of attendance, most recent previous education institution attended, other information including major, field of study, degrees, awards received, and participation in officially recognized activities/sports.

Other Course Policies:

Cell Phones:

Please refrain from all cell phone use (including texting) during class as it may be distracting to the instructor or other students in the class.