College Algebra - Math 1314.881
Course Syllabus: Summer I, 2022

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

Dr. Leah Reagan
Office: Online during summer
Email: lreagan@ntcc.edu or TEAMS messaging

Office Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Online
	Online	Online	Online	Online		Professor checks email and Remind texting multiple times daily.

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(s): Appropriate test score / TSI placement with multiple measures

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.

Evaluation/Grading Policy:

Exam 1	10%
Exam 2	15%
Exam 3	10%
Exam 4	15%
Homework Assignments	30 %
Final Exam	20 %

	TOTAL 100 %

"A" - 90%
"B" - 80%

"C" - 70%
"D" - 60%
"F" - Below 60%

Homework:
- All homework assignments will be found on MyMathLab (MML).
- Due dates for all assignments can be found on the <u>calendar at the top of the MML course home</u> page. You will need to scroll through the calendar to see all due dates in MML.
- Homework problems have an unlimited number of attempts. You may re-work the problem as many times as necessary to learn the concept and get the problem correct. However, be aware that the computer will generate a new problem for each attempt.
- The last grade earned for each homework assignment will be posted for the assignment's final grade.
- There are no make-up assignments.
- Any assignment not submitted will receive a grade of zero.

Exams:

- All exams are online on MML; however, the final exam must be proctored. See information below. Each exam will be available on the website at scheduled times.
- <u>Due dates for all exams can be found on the calendar at the top of the MML course home page.</u> You will need to scroll through the calendar to see all due dates. Exam dates may also be found on blackboard.
- Only one attempt per question is allowed on exams.
- Any exam not submitted will receive a grade of zero.
- The comprehensive FINAL EXAM must be proctored. You may still take it at home, but we will either use Respondus Lockdown browser, Zoom, or another similar online device to proctor the exam. We will discuss this in detail closer to the final exam time.

Required Instructional Materials:

Blitzer, *College Algebra*, 7th Edition
Printed loose-leaf textbook with MyMathLab access code (can be found in the NTCC bookstore
www.ntcc.edu)

Publisher: Pearson Publishing Co. (www.pearson.com)

In an effort to save students money, your course materials are delivered through Inclusive Access. You have already paid for your course materials with your tuition and fees. Below is the required course materials:

ISBN:

978-0-13-475792-6   BLITZER / COLLEGE ALGEBRA DIGITAL TEXT W/MYLAB MATH (Provided through Inclusive Access)
978-0-13-446987-4   BLITZER / PRINT UPGRADE: COLLEGE ALGEBRA (This is optional but recommended. $53.33 in the NTCC bookstore – it's a loose-leaf book in a binder).

To access your course materials, click on the Course Materials Access link within the Start Here folder on Blackboard.
For additional information on Inclusive Access, please access the textbook information provided on the portal (student tab, click on Academics then Textbooks.)

Note: The NTCC Bookstore link is at www.ntcc.edu

Optional Instructional Materials: None

Minimum Technology Requirements:

Graphing Calculator is required. TI-83 or TI-84 are preferred, but other models may be approved by the instructor.

Required Computer Literacy Skills:

 1) Communicate via email;
 2) Saving and reloading saved files;
 3) Navigate Blackboard to access posted materials and MyStatLab assignments.

Course Structure and Overview:

This is a 5-week online course where students are required to access graded activities on MyMathLab via the Blackboard Learning Management System. Students are required to complete online homework in addition to regular exams and a final exam. It is very important students keep up with course materials and assignments since this is a very fast-paced, college-level course. Students are expected to watch posted instructional videos, read the course textbook, and complete online assignments located in MyMathLab by due dates.

Students need to check their email and TEAMS (texts) accounts daily AND log in to MyMathLab to make sure they receive all communications from the professor.

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 Application

Communications:

Emails and Remind texts will be responded to within 24 hours.

The college's official means of communication is via your campus email address. Your instructor will use your campus email, Blackboard, and TEAMS texting to communicate with you outside of class. You need to check these daily so that you won't miss any information from your instructor. Make sure you keep your campus email cleaned out and below the limit so you can receive important messages.

Institutional/Course Policy:

Since this is an online course, students need to be self-motivated to keep up with the work. Students should be working on homework daily in order to keep up. Students need to watch the videos provided in Blackboard and on MyMathLab to help them learn the material.

No late work will be accepted. It is the student's responsibility to check Blackboard and NTCC email for important information/announcements regarding the course. Students should be working on course material via Blackboard daily. Do not wait until the last minute to complete and submit assignments in case of technology issues.

NTCC Academic Honesty/Ethics Statement:

NTCC upholds the highest standards of academic integrity. The college expects all students to engage in their academic pursuits in an honest manner that is beyond reproach using their intellect and resources designated as allowable by the course instructor. Students are responsible for addressing questions about allowable resources with the course instructor. Academic dishonesty such as cheating, plagiarism, and collusion is unacceptable and may result in disciplinary action. This course will follow the NTCC Academic Honesty and Academic Ethics policies stated in the Student Handbook. Refer to the student handbook for more information.

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 request accommodations. An appointment can be made with the Academic Advisor/Coordinator of Special Populations located in Student Services and can be reached at 903-434-8264. For more information and to obtain a copy of the Request for Accommodations, please refer to special population page on the NTCC website.

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.

Tentative Course Timeline (*note* instructor reserves the right to make adjustments to this timeline at any point in the term):

Course Schedule:

		ASSIGNMENTS:		DUE DATES:
1		Orientation Homework		06/08
2		Sections 1.1 and 1.2 Homework		06/10
3		Sections 1.4 - 1.5A Homework		06/12
4		Sections 1.5B - 1.6A Homework		06/14
5		Sections 1.6B - 1.7 Homework		06/16
6		Ch. 1 Review		06/17
7		**Chapter 1 Test: June 16- 17**		**EXAM OPENS AT 8 a.m. on 06/16 AND CLOSES AT MIDNIGHT ON 06/17**
8		Sections 2.1 - 2.2 Homework		06/18
9		Sections 2.3, 2.4 and 2.5 Homework		06/19

10	Sections 2.6, 2.7, and 2.8 Homework		06/21	
11	Ch. 2 Review		06/23	
12	**Chapter 2 Test: June 22 - 23**		**EXAM OPENS AT 8 a.m. on 06/22 AND CLOSES AT MIDNIGHT ON 06/23**	
13	Sections 3.1 - 3.3 Homework		06/24	
14	Sections 3.4 and 3.5 Homework		06/26	
15	Ch. 3 Review		06/28	
16	**Chapter 3 Test: June 27 - 28**		**EXAM OPENS AT 8 a.m. on 06/27 AND CLOSES AT MIDNIGHT ON 06/28**	
17	Sections 4.1 and 4.2 Homework		06/30	
18	Section 5.1 and 5.2 Homework		07/02	
19	Sections 6.1 and 6.3 Homework		07/03	
20	Ch. 4-6 Review		07/05	
21	**Chapter 4-6 Test: July 5 - 6**		**EXAM OPENS AT 8 a.m. on 07/05 AND CLOSES AT MIDNIGHT ON 07/06**	
22	Review for Final Exam		07/08	
23	**Final Exam: July 7 - 8**		**EXAM OPENS AT 8 a.m. on 07/07 AND CLOSES AT MIDNIGHT ON 07/08**	