College Algebra - Math 1314.42D/43D (Dual Credit)

Course Syllabus: Spring 2020

"Northeast Texas Community College exists to provide personal, dynamic learning experiences empowering students to succeed."

Instructor: Karen Russell

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Office Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Online
	2:00-3:00 pm	2:00-3:00 pm	2:00-3:00 pm	2:00-3:00 pm	2:00-3:00 pm	

This syllabus serves as the documentation for all course policies and requirements, assignments, and instructor/student responsibilities.

Information relative to the delivery of the content contained in this syllabus is subject to change. Should that happen, the student will be notified.

Course Description:
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:

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.

Required Instructional Materials:
Blitzer; *College Algebra*, 7th Edition
Publisher: Pearson, Boston, MA

Minimum Technology Requirements:
Graphing Calculator is required. TI-84 is preferred, but other models may be approved by the instructor.

Required Computer Literacy Skills:
None

Course Structure and Overview:
This is a 16-week embedded dual credit course designed for students who are concurrently enrolled in both a high school algebra 2 class and the college-level class. A typical week involves general participation by all students in discussion regarding mathematical principles and procedures being studied. Students are required to complete problems as assigned in class. It is very important for students to keep up with course materials and assignments. Students are expected to complete all assignments by the due dates.

Communications:
The college's official means of communication is via your campus email address. I will use your campus email and Remind messaging to communicate with you outside of class. Make sure you keep your campus email cleaned out and below the limit so you can receive important messages.

Institutional/Course Policy:
No late work will be accepted without prior approval by the instructor. Students are always expected to be respectful toward classmates and instructor. Review Student Conduct in the Student Handbook.

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: (Subject to Change)

Weeks	**Topics**	**Assignments**	**Due Dates** (Due by beginning of class unless otherwise noted)
Week 1: 1/21/20 -1/26/20	Ch. 1: Equations and Inequalities Sections 1.1 and 1.2	Problems as assigned in class	1/24/20
Week 2: 1/27/20 – 2/2/20	Sections 1.4 and 1.5A	Problems as assigned in class	1/31/20
Week 3: 2/3/20 – 2/9/20	Sections 1.5B and 1.6A	Problems as assigned in class	2/7/20
Week 4: 2/10/20 – 2/16/20	Sections 1.6B and 1.7	Problems as assigned in class	2/14/20
Week 5: 2/17/20 – 2/23/20	Sections 1.1, 1.2, 1.4, 1.5, 1.6, 1.7	Problems as assigned in class	2/21/20

Week 6: 2/24/20 – 3/1/20	Ch. 2: Functions & Graphs Sections 2.1, 2.2	Ch. 1 Test Problems as assigned in class	2/26/20 2/28/20
Week 7: 3/2/20 – 3/8/20	Sections 2.3, 2.4, 2.5	Problems as assigned in class	3/6/20
Week 8: 3/9/20 – 3/15/20	Sections 2.6, 2.7, 2.8	Problems as assigned in class	3/13/20

3/16/20 – 3/22/20	Spring Break		
Week 9: 3/23/20 – 3/29/20	2.1 – 2.8 Ch. 3: Polynomial and Rational Functions Sections 3.1, 3.2	Problems as assigned in class Ch. 2 Test Problems as assigned in class	3/25/20 3/25/20 3/27/20
Week 10: 3/30/20 – 4/5/20	Sections 3.3, 3.4, 3.5	Problems as assigned in class	4/3/20
Week 11: 4/6/20 – 4/12/20	Ch. 5: Systems of Equations & Inequalities Sections 5.1, 5.2	Ch. 3 Test Problems as assigned in class	4/7/20 4/9/20
Week 12: 4/13/20 – 4/19/20	Ch. 6: Matrices & Determinants Sections 6.1, 6.3	Problems as assigned in class	4/17/20
Week 13: 4/20/20 – 4/26/20	Ch. 4: Exponential & Logarithmic Functions Sections 4.1, 4.2	Problems as assigned in class	4/24/20
Week 14: 4/27/20 – 5/3/20	Ch. 4 Sections 4.1, 4.2 Ch. 5 Sections 5.1, 5.2 Ch. 6 Sections 6.1, 6.3	Problems as assigned in class Ch. 4-6 Test	5/6/20 5/8/20
Week 15: 5/4/20 – 5/10/20	Cumulative Final Exam Review	Final Exam Review	5/8/20
Week 16: 5/11/20 – 5/14/20	Cumulative Final Exam	Final Exam	5/12/20