



RANGER COLLEGE
COMANCHE HIGH SCHOOL

COURSE SYLLABUS

College Algebra

MATH 1314

3 credit hours

INSTRUCTOR:

Mrs. Heather Cuellar

RANGER COLLEGE SYLLABUS

Course: Math 1314, College Algebra

Credit Hours: 3

Instructor: Heather Cuellar

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Office Hours: Wednesdays after school

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1. Texas Core Curriculum Statement of Purpose

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.

2. Catalog Description

Study of quadratics; polynomial, rational, exponential, and logarithmic functions; systems of equations; progressions; sequences and series; conic sections; and, matrices and determinants.

3. Required Background or Prerequisites

Two years of high school algebra or a C or better in DMAT 0323 or equivalent.

4. Required Textbook and Materials

Blitzer, College Algebra, An Early Functions Approach, 3rd Edition, Pearson Publishing ISBN 9780321729644

MyMathLab Access Code, Pearson Publishing

Graphing calculator (TI-84+CE) strongly recommended

5. Course Purpose

This course focuses on quantitative literacy in logic, patterns, and relationships. The course involves the understanding of key mathematical concepts and the application of appropriate quantitative tools to everyday experiences.

6. Learning Outcomes

Upon successful completion of this course, the student will:

- 1) Demonstrate and apply knowledge of properties of functions, including domain and range, operations, compositions, and inverses
- 2) Recognize and apply polynomial, rational, radical, exponential and logarithmic functions and solve related equations
- 3) Apply graphing techniques
- 4) Evaluate all roots of higher degree polynomial and rational functions
- 5) Recognize, solve, and apply systems of linear equations using matrices

7. Core Objectives

This course directly meets the following of the six Core Objectives:

- ⊗ **Critical Thinking Skills (CT)**– Creative thinking, innovation, inquiry, and analysis; evaluation and synthesis of information
- ⊗ **Communication Skills (COM)**– Effective development, interpretation, and expression of ideas through written, oral, and visual communication
- ⊗ **Empirical and Quantitative Skills (EQS)**– The manipulation and analysis of numerical data or observable facts resulting in informed conclusions
 - **Teamwork (TW)**– The ability to consider different points of view and to work effectively with others to support a shared purpose or goal
 - **Social Responsibility (SR)**– Intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities
- ⊗ **Personal Responsibility (PR)**– The ability to connect choices, actions, and consequences to ethical decision-making

8. Methods of Instruction

This is a multimedia class. Media may include informal lecture/demonstration, computer delivered homework and tutorials, Power Point units, and classroom manipulatives. At least one assignment will be conducted in which students will work in two or three member teams to accomplish specific objectives. An example could be to gather data to formulate a system of linear equations in three variables and apply a matrix technique to solve the system.

9. Methods of Assessment

Students missing lectures are responsible for getting notes, handouts, etc. from the instructor or classmates. Make up exams will only be given for official absences and arrangements must be made prior to the scheduled test

time and date. **Failure to make up a quiz/exam in advance will result in a grade of zero.** The six-weeks grade will be computed as follows:

HW/MSL	20%
Quizzes	30%
Exams/Projects	50%

The final college grade will be computed with each six-weeks grade counting 25% and the final exam counting 25%. Letter grades will be assigned as follows:

A: 90 – 100, B: 80 – 89, C: 70 – 79, D: 60 – 69, F: below 60

10. Classroom Policies/procedures

- Regular and punctual attendance in all classes is considered essential for optimum academic success.
- Students are expected to be seated by the beginning of the class.
- If a student has the equivalence of three weeks of unofficial absencesthe student may be dropped from the class with a grade of F (Ranger College General Catalog).
- Excessive tardiness (6) may be considered as an absence.
- It is the responsibility of the student to inform the instructor of an excused absence. An absence may be excused by the Dean for participation in an authorized college activity or for a valid medical reason.
- Any student who is disruptive to the class will be dismissed from the class and may be dropped from the course. Any student misconduct will be reported to the Dean of Student Services (See Student Handbook.)
- Any student found with unauthorized material(s) such as cheat sheets, electronic devices, etc. during a quiz/exam or copying from another student's work will be subject to disciplinary action.
- Please do not bring cell phones, ipods, or other electronic devices to class or be sure they are turned off. Computers (lap tops) may be used with special permission and only for math class material.
- No use of tobacco products is permitted in any campus buildings.

11. Course Outline/Schedule

1st Six-weeks: Chapters 1 – 2

2nd Six-weeks: Chapters 3 - 4

3rd Six-weeks: Chapters 5 - 8 and Final Exam

12. Non-Discrimination Statement

Admission, employment, and program policies of Ranger College are non-discriminatory with regard to race, creed, color, sex, age, disability, and

national origin.

13. ADA Statement

Ranger College provides a variety of services for students with learning and/or physical disabilities. The student is responsible for making the initial contact with the Ranger College counselor. It is advisable to make this contact **before** or **immediately after** the semester begins.

14. Revision of Syllabus

The content in this syllabus is subject to change based upon the needs of a particular class. Any revisions will be distributed in writing.