



RANGER COLLEGE
EARLY HIGH SCHOOL
EARLY, TEXAS

COURSE SYLLABUS

College Algebra
MATH 1314

3 credit hours

Fall 2018

INSTRUCTOR:
Melissa Lewis, MS

MATH 1314 – Fall 2018

INSTRUCTOR: Melissa Lewis, MS

EMAIL: Melissa.Lewis@EarlyISD.net

ROOM: B-14

PHONE: 325 – 643 – 4593, ext. 5214

CLASS HOURS: M T W Th F, 8:50am – 9:40am

TUTORING: before/after school - daily

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. **Course 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 Course Materials**

Blitzer, College Algebra, An Early Functions Approach, 4th Edition, Pearson Publishing
ISBN 9780134470023

MyMathLab Access Code, Pearson Publishing

Graphing calculator – TI Nspire, 84, or 83 recommended

Multiple supplementary documents distributed via Blackboard including, but not limited to the following:

- Fundamental Mathematics Vocabulary
- Properties of the Field of Real Numbers
- Strategy to Factor Algebraic Expressions
- Strategy to Solve Verbal (word) Problems
- General Analytic Techniques for Polynomial Graphs

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.

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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/methods may include informal lectures, discussion, PowerPoints, computer managed homework, computer delivered tutorials, limited self – pacing, instructional television, and distance delivery via Blackboard. At least one assignment may be conducted in which students will work in three or four member teams to accomplish specific objectives.

9. Methods of Assessment

- **Daily Work (20 %) (CT, COM, EQS, PR)** – Daily in-class assignments and quizzes
- **MyMathLab (20%) (CT, COM, EQS, PR)** – Online homework
- **Major Exams (40%) (CT, COM, EQS, PR)** – A minimum of four exams throughout the semester, each exam covering multiple chapters from the textbook.
- **Final Exam (20%) (CT, COM, EQS, PR)**-This is a departmental exam and may be used for data collection purposes as well as determining the course grade.

<u>Grading Scale:</u>	A = 90 – 100%
	B = 80 – 89%
	C = 70 – 79%
	D = 60 – 69%
	F < 60%

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10. Classroom Policies/procedures

- Students are expected to attend, be on time, and be prepared for every class meeting.
- Students are responsible for informing the instructor of an upcoming absence (excused or unexcused).
 - If a student has the equivalence of three weeks of unofficial absences the student may be dropped from the class with a grade of F (Ranger College general catalog).
- Students are solely responsible for obtaining assignments and other materials for classes from which they are absent (excused and unexcused).
- Students are expected to complete each assignment by the specified due date/time.

No late work will be accepted.
- Students are expected to adhere to campus and instructor behavior policies.
 - 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 Ranger College Student Handbook.)
- Students are expected to turn off all personal technology devices before entering the classroom, including but not limited to cell phones, music players, computers, etc. Cell phone use is not permitted in the classroom for any reason (including calculator applications). Laptops may be used with instructor permission and only for class material.

11. Course Outline/Schedule

Weeks 1 – 4	Textbook Chapters P – 2
Weeks 5 – 8	Textbook Chapters 3 – 4
Weeks 9 – 11	Textbook Chapters 5 – 6
Weeks 12 – 14	Textbook Chapter 7
Week 15	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. Students are responsible for making initial contact with the Ranger College Counselor, Gabe Lewis (glewis@rangercollege.edu). It is advisable to make this contact before or immediately after the semester begins.

All items contained in this syllabus are subject to change as the semester progresses. Students will be notified as changes occur.

Acknowledgement of Syllabus:

My signature below indicates that I have received and understand the contents of this syllabus.

Student Signature

Date

Printed Name of Student