RMLHS Algebra II — Syllabus

Course Purpose / Objective
This algebra course is designed to provide a balance of problem solving, skill development, and conceptual understanding. This course is based on developing algebraic skill through understanding in three key ways:

- writing algebraic expressions to represent problems described in words, given as diagrams, or based on data;
- understanding the relationships among equations, graphs, and solutions to equations; and
- knowing how and when to use algebraic or approximate methods to solve a variety of equations and combinations of equations or inequalities.

Course material will be presented using classroom instruction, discovery/study teams, and assessment (classwork, homework, presentations, quizzes, and exams).

Instructor
Eric Allen Brucker PhD
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Textbook
College Preparatory Mathematics 3 – Algebra 2 (2nd Edition)
Sallee, Kysh, Kasimatis and Hoey

Course Outline

Unit 1	Exploring Functions	*Sharpening Pencils*
Unit 2	Sequences	*The Bouncing Ball*
Unit 3	Exponential Functions	*Fast Cars and Depreciation*
Unit 4	Parabolas and Other Parent Graphs	*The Gateway Arch*
Unit 5	Linear Systems and Matrices	*The Toy Factory*
Unit 6	Logarithms and Other Inverses	*The Case of the Cooling Corpse*
Unit 7	Polynomials and General Systems	*At the County Fair*
Unit 8	Circular Functions	*The Circle of Terror*

Workload and Grading

classroom	daily participation and presentations	10% of total grade
homework	daily, 4 points per question	10% of total grade
quizzes	as needed, 10 points per question	20% of total grade
team tests	one per unit, 100 points each	10% of total grade
tests	one per unit, 100 points each	50% of total grade

Required Materials
1.5" three-ring binder
three-hole punched green engineering paper
TI-83+ (or similar) graphing calculator
writing utensil

Rules
Respect (see also Student Handbook)

Procedures

seating	assigned (at lab tables) bring everything needed for class including planner may bring a drink but not food
behavior	mature adolescent Christian, "eyes here"
groups	1) help others 2) ask instructor when all have question 3) responsible for own work 4) group voice
homework	handed in on due date, always individual work (no groups), "over and up, yours on top"
cabinets	closed cabinets off-limits (except under microwaves) open bookshelf for reference materials (all which stay in room)
dismissal	bell for instructor, then instructor dismisses class
tardy	stand at door and ask permission to enter during natural break
absent	receive assignments from classmate