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COLLEGE ALGEBRA
UMSL - MATH 1030

Welcome to the 2018 - 2019 School Year

How can I get extra help?

Schedule:

Block 1: Plan	Block 2: Plan
Block 3: Algebra 1	Block 4: Academic Lab
Block 5: College Algebra	Block 6: Algebra 1
Block 7: Algebra 1	Block 8: College Algebra

1. Stay afterschool with Mrs. H
2. See Mrs. H during Ac lab.
3. Math Tutor Room Tues/Thurs afterschool in 1705

Expectations:

- Always come to class prepared with completed assignment, pencil, notebook, and calculator.
- Be on time and in your seat when the bell rings, otherwise you will be considered tardy.
- Do not bring any type of food or drink into class. Water is allowed.
- Be polite, courteous, and responsible young adults.
- NO HATS in class! NO PHONES in class!

Supplies:

- 3 ring binder 1" or 1.5" - Just for College Algebra!
- 8 Dividers
- loose-leaf paper
- pencils and erasers
- calculator (you need a scientific calculator with y^x (exponent) and $\sqrt{\quad}$ (square root) keys. If you would like to purchase a graphing calculator we recommend the TI-84 or TI-NSpire.)

Textbook: Larson, Ron. *College Algebra*, ninth edition, Boston: Brooks/Cole, Cengage Learning.

WebAssign: students will use the online resources of WebAssign, linked to their College Algebra textbook.

Class Key: parkwaysouth.mo 0229 4678

Help Line: 1-800-955-8275

Grading:

The grading scale is as follows:

A: 93 - 100	C: 73 - 76
A-: 90 - 92	C-: 70 - 72
B+: 87 - 89	D+: 67 - 69
B: 83 - 86	D: 63 - 68
B-: 80 - 82	D-: 60 - 62
C+: 77 - 79	F: 59 or below

Your grade will be based upon Homework, Quizzes, Projects, Tests, and a Final Exam.

Your grade will be calculated as follows:

Homework	10%
Quizzes	10%
Assessments	60%
Final	20%
<hr/> Total	<hr/> 100%

Assessments:

- All homework for a given unit must be complete before the unit assessment date for a student to be eligible to retake the assessment. After each assessment, students will be given the opportunity to retake the test after completing a "ticket to the test" accurately.
- Assessments are given regularly and are scheduled in advance. You are expected to take a test or a quiz even if you miss the class prior to the assessment. If you miss the day of a test or quiz, it is your responsibility to come in and **IMMEDIATELY** take the assessment you missed. It has been my experience that students who wait to make up assessments do not do well. You have one week (at most) to make up a missing assessment.

Homework:

- Homework will be assigned EVERYDAY! Homework, classwork, and quizzes are critically important since they are designed to ensure you struggle with and learn each standard.
- It is expected that each assignment is attempted in its entirety. I expect you to make mistakes on your assignments as it is part of the learning process, it is my hope that you will learn from these mistakes and ask for help if you need it.
- Each homework assignment will be graded out of 4 points.
- In addition, all homework must be complete for a student to take an assessment

ALL ASSIGNMENTS ARE EXPECTED TO BE DONE IN PENCIL!!

Quizzes:

- Quizzes will be given over homework and material learned from previous lessons in class on a regular basis. Many of these quizzes are open note/homework and therefore staying current on your homework is critical.
- Each quiz will be graded out of 4 - 20 points.

Improving your grade:

- You will have the opportunity to re-take assessments and improve your score, but only during specified days. Your new score will completely replace your previous score.
- To earn the right to re-take an assessment, you will need to produce evidence that you have improved your understanding and performance. This will include completing additional "Ticket to the Test" practice.
- Re-take assessments may be available after school, during school, or before school, but only on specified days.

Academic Integrity:

- Cheating is defined as acting dishonestly or unfairly in order to gain an advantage or defined as turning in any work that is not your own. This includes copying down someone else's homework. Cheating will warrant a zero on the assignment plus additional disciplinary action, in accordance with the student planner.

College Credit:

This class may be taken for 3 hours of college credit through UMSL. Registration for this take place in early January. Should you enroll in this class through UMSL, your grade will be based on the average of your semester grades in this class. The grade will go on your college transcript. Enrollment information can be found at: <http://umsl.edu/acp>

Tardies:

You are allotted one tardy per semester. Additional tardies will result in after school detentions.

Absences:

Excused absences DO NOT excuse you from the work you missed. Unexcused absences will result in an **after school detention and the loss of a learning opportunity.** Refer to the student handbook for information on multiple unexplained absences. You are responsible for getting and completing any work you missed due to absences.

Cell Phone Policy:

Cell phones are prohibited in my classroom. All phones should be set to silent or turned off and kept in backpacks for the entirety of class time, determined by the school bells. Cell phones that are out during class time will be taken away and repeat offenses will result in detentions, phone calls home, and/or the device being taken to your administrator.

I'm looking forward to a great year and I will do my best to be available to you if you have any questions or concerns. **Work hard and do your best!!**

UMSL MATH 1030: Topics in algebra and probability, polynomial functions, the binomial theorem, logarithms, exponentials, and solutions to systems of equations.

Course Objectives: Students will be able to:

- a. Find zeros, and graph, polynomial functions
- b. Understand and solve linear, quadratic, absolute value, radical, exponential, logarithmic, and other types of functions
- c. Use polynomial long division, the remainder theorem, the factor theorem, and the zeros of polynomials
- d. Use matrices and determinants to solve linear systems of equations
- e. Apply the concept of logarithms and exponential functions
- f. Write sequences in summation notation, learn to recognize and complete the calculations involving arithmetic and geometric series
- g. Use the binomial theorem and Pascal's triangle to expand binomials in positive integer powers
- h. Graph and write the equations of conic functions

Course Schedule:

Unit Number	Unit Title	Topics Covered	Time Spent on Unit
1	Functions	Lines (Graphing & Writing), Parallel and Perpendicular Lines, Domain & Range, Transformations of Functions, Function Operations & Compositions, Inverse Functions, Applications of Functions	12 Days
2	Polynomial Functions	Complex Numbers, Sketching Graphs of Functions (max / min, intercepts), Writing Equations of Functions, Transformations of Functions, Modeling Functions, Polynomial Long Division & Synthetic Division, Remainder & Factor Theorems, Zeros of Polynomial Functions, Fundamental Theorem of Algebra, Factoring, Applications	10 Days
3	Rational Functions	Solving Rational Functions, Rational Inequalities, Domain of Rational Functions, Graphing, Vertical, Horizontal, and Slant Asymptotes, Modeling and Variation	10 Days
4	Conics	Graphing & Writing Equations of Circles, Ellipses, Parabolas and Hyperbolas	6 Days
5	Exponential & Logarithmic Functions	Graphing Exponential & Logarithmic Functions, Transformations of Exponential & Logarithmic Functions, Solving Logarithmic & Exponential Functions, Working with Common Logarithms and Natural Logarithms, Properties of Logarithms, Expanding & Condensing Logarithms, Modeling Using Exponential & Logarithmic Functions	11 Days
6	Matrices	Solving Two Variable Systems, Turning Systems into Matrices, Operations with Matrices, Finding the Determinant of Square Matrices, Matrices on the Calculator, Applications of Matrices & Determinants	8 Days
7	Sequences & Series	Writing Sequences, Using Summation Notation, Recursive Sequences, Writing Arithmetic Sequences, Finite Arithmetic Sequences, Writing Geometric Sequences, Finding Sum of Finite & Infinite Geometric Sequences, Mathematical Induction, Binomial Theorem, Pascal's Triangle	11 Days
8	Probability	Counting Principles, Permutations vs Combinations, Probability, Sample Space, Independent Events, Complements of Events, Expected Value	5 Days
9	Cumulative Final (Fall & Spring)	Final Exam – December (End of 1 st Semester) Final Exam – May (End of 2 nd Semester)	

