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| Course Syllabus |

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| **Course Name**: M/J Mathematics 3  **Description:**  Do you like to surf the net and play interactive games? Get ready to find this same intrigue and fun when you log in to the new MJ Math 3 course. Full of animations, applications, videos, games, and real world scenarios, you may think this course is the latest video game. No! It is MJ Math 3 course.  You will love this hands-on math course. The truth is, this course could easily become your favorite class ever. You will soon be waiting for your next opportunity to move to the next screen. The satisfaction you will gain in knowing that you truly understand higher level concepts such as systems of equations and central tendencies, will create a new you.  Get a seat belt for your computer chair. You are going to need it! Buckle up and get ready to escape into a course for the time of your life.  **Estimated Completion Time:** 2 segments / 32-36 weeks  **Major Topics and Concepts:**  **Segment 1**  \* Add, subtract, multiply, and divide integers. \* Simplify numerical expressions involving integer exponents. \* Simplify numerical expressions using the order of operations. \* Simplify expressions using the laws of exponents. \* Represent powers of ten using exponential expressions. \* Use scientific notation to write large and small numbers, and solve problems. \* Evaluate expressions for a given value. \* Use the distributive property to simplify expressions. \* Solve and graph one- and two-step inequalities. \* Solve literal equations. \* Identify and plot ordered pairs in all four quadrants of the coordinate plane. \* Understand the concept of a function, the domain and range values for a function, and the graph of a function. Construct and analyze tables, graphs, and functions to describe linear functions using both common language and algebraic notation. \* Interpret slope as a rate of change. \* Interpret x- and y-intercepts. \* Compare the graphs of linear and non-linear functions for real-world situations. \* Use models to solve systems of linear equations. \* Represent systems of linear equations algebraically. \* Identify the solution to a system of linear equations using graphs. \* Identify the number of solutions to a system based on a graph.  **Segment Two**  \* Calculate and prioritize central \* Use similar triangles. \* Use portions to solve real world problems. \* Calculate and estimate square roots. \* Use Pythagorean Theorem to solve real world problems. \* Convert between systems of measurements. \* Investigate the sum of angles in a polygon. \* Complete dimensional analys. \* Construct and read bar and circles graphs. \* Construct and read Tables, stem-and-leafs plots, and histograms. \* Construct and analysis box and whisker plots \* Investigate and create lines of best fit for scatter plots. \* Identify basic Geometry terms \* Evaluate angles and angle pairs made from a traversal. \* Classify and measure angles \* Identify and create polygons \* Use the triangle sum theorem  **Course Assessment and Participation Requirements:**  Besides engaging students in challenging curriculum, the course guides students to reflect on their learning and to evaluate their progress through a variety of assessments. Assessments can be in the form of self-checks, practice lessons, multiple choice questions, projects, essays, oral assessments, and discussions. Instructors evaluate progress and provide interventions through the variety of assessments built into a course, as well as through contact with the student in other venues. |

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