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| **MATH 130 OUTLINE** |
| COLLEGE ALGEBRA |
| TEXT: College Algebra, 13th Edition, Lial/Hornsby/Schneider |
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| **Approved: November 2023** | **Effective: FALL 2024** |
| **MATERIAL TO BE COVERED** | **SECTIONS FROM TEXT** | **TIMELINE** |
| Simplify polynomial, radical, and rational expressions including integer and rational exponents. Factoring polynomials. | R3 - R8 | 7 hours |
| Solving linear, quadratic, and rational equations and inequalities. Solving radical and quadratic-in-form equations. Applications of linear, quadratic and rational equations. Simplifying complex numbers. | 1.1 - 1.8 | 8 Hours |
| Graphs of equations (optional: circles), functions, linear functions, graphs of basic functions and piecewise-defined functions, graphing techniques, function operations including composition. | 2.1, 2.3 - 2.8(2.2 optional) | 10 hours |
| Quadratic functions and applications, synthetic division, real and complex zeros of polynomial functions, polynomial functions: graphs and applications; rational functions: graphs and applications; variation. | 3.1 - 3.5, 3.7 | 14 hours |
| Inverse functions, exponential functions, logarithmic functions, properties of logarithms, exponential and logarithmic equations and applications. | 4.1 - 4.6 | 10 hours |
| Linear systems of equations: two and three variables and applications, Linear systems of inequalities. | 5.1 & 5.6 | 3 hours |
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| \*\*\* One hour = 1 hour of face time. \*\*\*\*This outline allows for 4 hours of exams. |
| 16 Week Term: 1 week = 3.75 hours (face time) 6 Week Term: 1 week = 10 hours (face time) |
| It is highly recommended that the instructor assign the summary exercises found in the middle of each chapter. |
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| Math Department Policy can be found at: <https://www.mtsac.edu/math/departmentpolicy.html> |

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