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| **MATH 130 + MATH 13 OUTLINE** |
| COLLEGE ALGEBRA |
| TEXT: College Algebra, 13th Edition, Lial/Hornsby/Schneider |
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| **Approved: March 2021** | **Effective: FALL 2021** |
| **MATERIAL TO BE COVERED** | **SECTIONS FROM TEXT** | **TIME LINE** |
| Math 130 Topics: Simplify polynomial, radical, and rational expressions including integer and rational exponents. Factoring polynomials. Math 13 Topics: Additional time with simplifying and factoring | R3 - R8 | Math 130: 7 hours Math 13: 5 hours |
| Math 130 Topics: 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. Math 13 Topics: Critical Thinking. Additional time on equations and applications. | 1.1 - 1.7 | Math 130: 8 Hours Math 13: 5 hours |
| Math 130 Topics: Graphs of equations (optional: circles), functions, linear functions, graphs of basic functions and piecewise-defined functions, graphing techniques, function operations including composition. Math 13 Topics: Additional time on graphing techniques | 2.1- 2.8 | Math 130: 10 hours Math 13: 5 hours |
| Math 130 Topics: Quadratic functions and applications, synthetic division, real and complex zeros of polynomial functions, polynomial functions: graphs and applications; rational functions: graphs and applications; variation. Math 13 Topics: Additional time on polynomial and rational functions and zeros. | 3.1 - 3.5, 3.7 | Math 130: 14 hours Math 13: 5 hours |
| Math 130 Topics: Inverse functions, exponential functions, logarithmic functions, properties of logarithms, exponential and logarithmic equations and applications. Math 13 Topics: Additional time on solving exponential and logarithmic equations and applications | 4.1 - 4.6 | Math 130: 10 hours Math 13: 5 hours |
| Math 130 Topics: Linear systems of equations: two and three variables and applications, Linear systems of inequalities Math 13 Topics: Additional time on three variable systems and applications | 5.1, 5.2, 5.6 & 5.7 | Math 130: 4 hours Math 13: 5 hours |
| Sequences and series including Arithmetic and Geometric sequences and summation properties and rules. Binomial theorem and Mathematical Induction. | 7.1 - 7.5 | Math 130: 8 hours Math 13: 5 hours |
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Submitted by: Summers, Birca, Chavez, DeWilde, Edward, Hall, Lee, Loyd, Kim, Nguyen,Q., Sun, Rivas, Rivers, Wakefield