

MATH2451 - Multivariable Calculus with Applications

[MATH 2451](#) Multivariable Calculus with Applications (4 semester credit hours) Vectors, matrices, vector functions, partial derivatives, divergence, curl, Laplacian, multiple integrals, line and surface integrals, Green's, Stokes', and Gauss' theorems, and applications in physical sciences and engineering. Topics drawn from implicit function theorem, differential forms and vector fields. Three lecture hours and two discussion hours per week; problem section required with [MATH 2451](#). Not all MATH/STAT courses may be counted toward various degree plans. Please consult your degree plan to determine the appropriate MATH/STAT course requirements. Prerequisites: A grade of at least a C- in either [MATH 2415](#) or in [MATH 2419](#) or equivalent and a grade of at least a C- in [MATH 2418](#) or equivalent. (3-2) S