



MTH 253: Calculus III

This course is a continuation of MTH 215. Topics include: two- and three-dimensional vectors; vector functions; partial derivatives; multiple integrals; and vector calculus. In addition to the four-hour lecture, a one-hour lab is required each week. Prerequisite(s): a grade of C- or higher in MTH 215. Four lecture hours and one laboratory hour per week. Instructional Support Fee applies. Gen. Ed. Competencies Met: Quantitative and Symbolic Reasoning.

Course Student Learning Outcomes

1. Define the concept of vectors and solve problems using vectors in 2D and 3D applications.
2. Apply the concepts of limits and differentiation to multivariate functions, including applications.
3. Apply the concept of integration to multivariate functions.
4. Develop various methods to solve both double and triple integrals.
5. Bring together the concept of vectors and calculus in terms of a line integral.
6. Use the different types of methods to solve line integrals.

Credits: 4

Program: Mathematics