



## MTH 132: Calculus with Applications

This course is a continuation of MTH 131. Topics include limits, continuity, differential calculus, applications of differential calculus, integral calculus, and applications of integral calculus. Prerequisite: a grade of C- or higher in MTH 131. Three lecture hours per week.

### Course Student Learning Outcomes

1. Demonstrate knowledge of linear, polynomial, rational, exponential, and logarithmic functions.
2. Solve problems involving limits and continuity of functions.
3. Demonstrate knowledge of the derivative of a function using the definition of the derivative and the formulas for products, quotients, and chain rule along with the applications of the derivative, mostly curve sketching and optimization.
4. Solve indefinite and definite integrals using simple integral formulas and the substitution method along with applications of the integral.

**Credits:** 3

**Program:** Mathematics