# First Term Calculus

## Course Objective

The sequence Math 119-120 is the Standard complete introduction to the concepts and methods of calculus. It is taken by all engineering students. The emphasis is on concepts, solving problems, theory and proofs. All sections are given a uniform midterm and a final exam. Students will develop their reading, writing and questioning skills in Mathematics.

## Course Content

Functions, limits, continuity and derivatives. Applications. Extreme values, the Mean value Theorem and its aplications. Graphing. The definite integral. Area and volume as integrals. The indefinite integral. Transedental functions and their derivatives. L`Hopital`s rule. Techniques of integration. Improper integrals. Applications.

# Past Years Exams (First Term)

# Second Term Calculus

## Course Objective

The sequence Math 119-120 is the Standard complete introduction to the concepts and methods of calculus. It is taken by all engineering students. The emphasis is on concepts, solving problems, theory and proofs. All sections are given a uniform midterm and a final exam. Students will develop their reading, writing and questioning skills in Mathematics.

## Course Content

Sequences, infinite series, power series, Taylor series. Vectors, lines and planes in space. Functions of several variables: Limit, continuity, partial derivatives, the chain rule, directional derivatives, tangent plane approximation and differentials extreme values, Lagrange multipliers. Double integrals with applications. The line integral.

# Past Years Exams (Second Term)