

## **Introduction:**

This lectures provide every thing necessary for the standard two terms in environmental engineering collage. Its purpose, besides making it possible to learn the mathematics of calculus, which is the reference in the second year, is to teach students how to use it effectively to show how knowing calculus can pay off no matter what professions they decide to enter later on. The applications describe here are real and their presentations are self-contained. Students will not need any previous experience with the field from which the applications are drawn. Each exercise set is graded to run from routine at the beginning to more challenging toward the end.

The lectures has been written to help the students in your development as an applied scientist, whether engineer, physicist, chemist, or mathematician. It contain material which we find of great use, not only in the technical courses, but also in profession of students after graduation.

The subjects of mathematic in second year in collage of environmental divided in two terms, first term and second term. In the first term, the term deal with the polar coordinate, vectors analysis, and partial derivative. In the first term, the term deal with matrix and determinant, multiple integral, sequences and infinite series.