

Learning Outcomes for Analytic Geometry & Calculus II, MATH-12003

Knowledge

The students should be able to develop their deeper understanding of the concepts they learned in Calc I: limits, continuity, derivatives, rates of change, linear approximation and differentials, definite and indefinite integrals, inverse functions. They should also study the techniques and applications of integration; trigonometric, logarithmic and exponential functions; polar coordinates; vectors; parametric equations; sequences and series.

Comprehension

Should be able to decide whether the given series is divergent or convergent. Should understand the notions of tangent vectors, equations of lines and planes.

Application

The main and most important application is to solve many different problems related to the subject.

Analysis

Should be able to use the analytic techniques to attack geometric problems.

Synthesis

Should get used to combine their skills from elementary mathematical courses to solve the more advanced problems in Calculus.

Evaluation

Should be able to decompose the function into power series.

Class Activities

To solve problems and prove Theorems in class.

Out of class Activities

To submit every week home assignments.