MATH 2472: Calculus II

A. COURSE DESCRIPTION

   Credits: 5
   Lecture Hours/Week: 0
   Lab Hours/Week: 0
   OJT Hours/Week: *.*
   Prerequisites: None
   Corequisites: None

   MnTC Goals: Goal 04 - Mathematical/Logical Reasoning

   Differentiation and integration of transcendental functions, techniques of integration, infinite sequences
   and series, parametric equations, polar coordinates, analytic geometry, and vectors. A graphing calculator
   is required. Prerequisite: A grade of C or better in MATH 2471. [Core Curriculum Goal Area 4]

B. COURSE EFFECTIVE DATES: 10/28/1997 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

   1. Applications of Integration
   2. Techniques of integration
   3. Infinite sequences and series
   4. Parametrized curves and polar coordinates

D. LEARNING OUTCOMES (General)

   1. develop an understanding of the basic concepts, methods and content of
   calculus.
   2. apply calculus in problem solving and mathematical modeling.
   3. apply problem solving strategies to look at problems from multiple points of view and judge the
   appropriateness of various models and techniques in each problem situation.
   4. create logical mathematical arguments in order to communicate problems and solutions effectively
   both orally and in writing.
   5. perceive the structure and beauty of mathematics, the economy and power of its notation and its
   applications in the world around us.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

   Goal 04 - Mathematical/Logical Reasoning

   1. Illustrate historical and contemporary applications of mathematical/logical systems.
   2. Clearly express mathematical/logical ideas in writing.
   3. Apply higher-order problem-solving and/or modeling strategies.

F. LEARNER OUTCOMES ASSESSMENT

   As noted on course syllabus

G. SPECIAL INFORMATION

   None noted