Bemidji State University

MATH 2472: Calculus II

A. COURSE DESCRIPTION
   Credits: 5
   Lecture Hours/Week: *.*
   Lab Hours/Week: *.*
   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. Liberal Education 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. be able to use calculus in problem solving and mathematical modeling.
   3. be able to 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. be able to construct logical mathematical arguments in order to
      communicate problems and solutions effectively both orally and in writing.
   5. gain an understanding and appreciation of 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. Explain what constitutes a valid mathematical/logical argument(proof).
   4. Apply higher-order problem-solving and/or modeling strategies.

F. LEARNER OUTCOMES ASSESSMENT
   As noted on course syllabus
G. SPECIAL INFORMATION

None noted