December 6, 2002

Peter L. Mortensen, Chair
Senate Committee on Educational Policy
Office of the Senate
228 English Building, MC-461

Dear Professor Mortensen:

Enclosed are copies of a proposal from the College of Liberal Arts and Sciences to revise the Mathematics Minor.

This proposal has been approved by the Committee on Courses and Curricula, Academic Affairs Committee, Executive Committee and the Faculty of the College of Liberal Arts and Sciences; it now requires Senate review.

Sincerely,

Keith A. Marshall
Assistant Provost

KAM/mll

c: E. G. Evans
    A. Mester
    J. Rosenblatt
November 25, 2002

Keith Marshall
Assistant Provost
Swanlund Administration Building
MC-304

Dear Keith:

The Committee on Courses and Curricula, Academic Affairs Committee, Executive Committee and the Faculty of the College of Liberal Arts and Sciences has voted to approve the following proposal:

Revision of the Mathematics Minor

This proposal is now ready for review by the Senate Educational Policy Committee for proposed implementation Fall 2003.

Sincerely,

Ann M. Mester
Assistant Dean

C: Prof. Joseph Rosenblatt
   Prof. E. Graham Evans, Jr
PROPOSAL TO THE SENATE COMMITTEE ON EDUCATIONAL POLICY

TITLE OF THE PROPOSAL:
Modification of Mathematics Minor, College of LAS

SPONSOR:
E. Graham Evans Jr.
Professor and Director of Undergraduate Programs
Department of Mathematics
333-1108

BRIEF DESCRIPTION:
Add Math 247 and Math 248 to the list of possible courses for the mathematics minor.

JUSTIFICATION:
Math 247 or 248 is the first rigorous course students take and is the prerequisite for many of the other advanced courses. As such it deserves to be used for the minor.

BUDGETARY AND STAFF IMPLICATIONS: (See Appendix I)
a. Additional staff and dollars needed
   NONE
b. Internal reallocations (e.g., change in class size, teaching loads, student-faculty ratio, etc.)
   NONE
c. Effect on course enrollment in other departments and explanations of discussions with representatives of those departments
   NONE
d. Impact on library, computer use, laboratory use, equipment, etc.
   NONE

GUIDELINES FOR UNDERGRADUATE EDUCATION:
CLEARANCES:

Department/Unit Head

Date

School Approval (if applicable)  Date

College of Liberal Arts and Sciences  Date

Provost  Date
STATEMENT FOR PROGRAMS OF STUDY CATALOG:

HOURS REQUIREMENTS

3-12  
Calculus through one of the following
MATH 242-Calculus of Several Variables
MATH 243-Multivariable Calculus and Vector Analysis
MATH 245-Calculus, II

15  
Completed in one of two ways:

EITHER
MATH 247  Fundamental Mathematics
or
MATH 248  Fundamental Mathematics (Advanced Composition)

and
12 hours of courses chosen from at least two of the following lists of courses.

OR
15 hours of courses chosen from at least two of the following lists of courses.

Algebra:
MATH 315-Linear Transformations and Matrices
MATH 317-Introduction to Abstract Algebra
MATH 318-Introduction to Linear Algebra
MATH 321-Symbolic Algebra
MATH 353-Elementary Theory of Numbers

Discrete Mathematics:
MATH 312-Graph Theory and Its Applications
MATH 313-Combinatorial Mathematics
MATH 314-Introduction to Mathematical Logic
MATH 382-Linear Programming and Combinatorial Optimization
MATH 383-Linear Programming
Analysis:

MATH 280-Advanced Calculus
MATH 285-Differential Equations and Orthogonal Functions
MATH 286-Differential Equations with Linear Systems and Orthogonal Functions
MATH 341-Differential Equations
MATH 342-Fourier Series and Boundary Value Problems
MATH 344-Elementary Real Analysis
MATH 346-Complex Variables and Applications
MATH 347-Introduction to Higher Analysis: Real Variables
MATH 348-Introduction to Higher Analysis: Complex Variables
MATH 350-Numerical Analysis: A Comprehensive Introduction
MATH 384-Nonlinear Programming
MATH 385-Differential Equations, II

Geometry:

MATH 302-Topics in Geometry
MATH 303-Advanced Aspects of Euclidean Geometry
MATH 323-The Calculus of Curves and Surfaces
MATH 332-Introduction to Set Theory and Topology
MATH 381-Vector and Tensor Analysis

Probability and Statistics:

MATH 361-Introduction to Probability Theory, I
MATH 363-Introduction to Mathematical Statistics and Probability, I
MATH 364-Introduction to Mathematical Statistics and Probability, II
MATH 366-Introduction to Probability Theory, II

Minimum total hours required