

MAT Exam Option for teachers in the Math in the Middle program
Updated 2-8-2007

The (MAT) Master of Arts in Teaching degree from the UNL Department of Mathematics with a Specialization in the Teaching of Middle Level Mathematics

M² Institute participants can select the MAT degree as an option for their Master's Degree. The course work consists of:

Math 800T - Mathematics as a Second Language
802T - Functions, Algebra, & Geometry for Middle Level Teachers
804T - Experimentation, Conjecture, and Reasoning
805T - Discrete Mathematics for Middle Level Teachers
806T - Number Theory and Cryptology for Middle Level Teachers
807T - Using Mathematics to Understand our World
808T - Concepts of Calculus for Middle Level Teachers
896 - Seminar - Integrating the Learning and Teaching of Mathematics

Stat 892 – Topics in Probability and Statistics (Math in the Middle)

Teac 800, 801, 888 (These three courses lead to a Minor in TLTE)

Teachers with prior graduate credits may request substitutes for the program above but a minimum of 18 hours must be in mathematics (or statistics).

The MAT Masters Examination consists of a three-part "take-home" written section and an oral presentation to an MAT faculty committee. The candidate is given approximately 4 to 6 weeks to complete the written portion of the examination. However, candidates can begin work on Part I.B as soon as they complete data collection for their Action Research Project.

Part I.A. The committee will select two mathematics questions from two different courses the MAT candidate has taken. Depending on the question, the length of the written response to these questions will vary, but a typical length will be 4 to 8 pages total.

Part I.B. The candidate will prepare a report on their Action Research Project. It is expected that the report will be approximately 5-7 single-spaced pages plus references or appendices.

Part I.C. The committee will select a mathematical topic on which the candidate will write an expository paper (including proofs or examples as appropriate) of approximately 8 to 10 single-spaced pages.

Part II. The candidate will appear before an MAT committee and give an oral presentation based on the paper they have written for Part I.C and their reflection on the Math in the Middle program, emphasizing one aspect of the M² experience (mathematics, pedagogy, leadership, action research). The presentation will be approximately 20 minutes in length. Following the presentation, the committee will ask questions designed to probe the candidate's depth of understanding of the topic. The committee may also ask questions related to Parts I.A or I.B if the committee feels this is appropriate.