

## Lewis & Clark Graduate School of Education and Counseling Master of Arts in Teaching: Secondary Content Knowledge: Foundational MATHEMATICS

Successful secondary mathematics teachers must possess extensive content knowledge as well as a thorough understanding of how different concepts in mathematics are taught. Your graduate school experience will contribute to the former, but focus on the latter. Each student enters our program with a different mathematical foundation built on a variety of formal and informal learning experiences. To assist us in interpreting your transcript data, assessing how your experiences outside of formal coursework contributed to your mathematical content area knowledge, and planning courses for the upcoming year, **we ask that all applicants provide information by completing the following form:**

Below you will find a list of mathematics content areas. For each content area we ask that you:

1. Rate your level of experience on a scale of 1-5 (1 = little or no experience and 5 = highly experienced.)
2. Indicate under the "Evidence" column where and how you received this experience (coursework, employment, personal research). Feel free to attach additional sheets if necessary.

**NAME:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

(Print Clearly)

Content Area	Rating	Evidence
<b>Number and Operations:</b> understanding of complex numbers and real numbers, relationships among numbers and number systems, and the meaning of operations		
<b>Algebra and Functions:</b> understanding various roles of pattern recognition, generalization, algebra, variables, functions and their inverses, and use of various forms of representation		
<b>Geometry:</b> understanding of 2-D and 3-D figures, Euclidean and non-Euclidean perspectives, trigonometry, multiple tools for spatial visualization and representation		
<b>Measurement:</b> understanding of processes for standard and non-standard measurement of 2-D and 3-D figures, including estimation and accuracy		
<b>Data Analysis/Probability/Statistics:</b> uses a variety of techniques for exploring data and making inferences		
<b>Trigonometry and Calculus:</b> understanding of trigonometric relationships, graphs and applications; understanding of limits, derivatives, and integrals of functions in one and two variables		
<b>Discrete Mathematics:</b> knowledge of graphs, trees, networks, and combinatorics		
<b>Technology:</b> experience with a graphing calculator and other interactive mathematics software		

Please submit your content form via the online application process. Questions: Graduate Admissions gseadmit@lclark.edu