With the transition from K-12 math curriculum based on the NCTM (National Council of Teachers of Math) to the Common Core Standards for Mathematics, teacher preparation programs also need to evaluate their programs and revise to meet the new expectations. The Ohio Department of Education, for example, has provided documents to assist school districts in completing a gap analysis of their mathematics curriculum. The districts are documenting what portions of their curriculum meet the new standards, what addresses the standards, and what remains to be addressed and, therefore, added. This study completes a gap analysis on the mathematics within the K-3, 4-9, and 7-12 mathematics teacher preparation programs within a large, Midwestern, metropolitan university with a large teacher preparation program. The program has exhibited success in preparing mathematics teachers as evidenced by a fairly high percentage of passing Praxis II Math Content exam scores. The study results will demonstrate those areas that can be deemphasized, those that should remain, and those needing increased emphasis. The results will provide a process and a template for other institutions to use to perform the same analysis and, therefore, to make necessary revisions. (Received September 04, 2012)