

**The Essential Competencies Curriculum  
Competency, Outcomes and Action Steps  
Mathematical Reasoning**

*TCU graduates will be able to reason mathematically.*

Outcome	Action Steps
Students will demonstrate the ability to apply mathematical reasoning to solve problems in a variety of contexts.	<p>Students will translate problems into mathematical statements and conversely, translate mathematical statements into clear prose.</p> <p>Students will solve mathematical problems methodically.</p> <p>Students will examine their mathematical problem solutions for accuracy and completeness.</p> <p>Students will identify the major mathematical principles used in their problem solutions.</p>
Students will evaluate processes and results of mathematical reasoning.	<p>Students will examine mathematical problem solutions for accuracy and completeness. This will include checking results and steps in the solution processes. It may include re-solving the problems by applying alternate solution methods.</p> <p>Students will identify the major mathematical principles used in the problem solutions and determine whether those principles were employed appropriately.</p>