

## Academic &amp; Instructional Assessment :: Assessment Objectives

1. mission

2. objectives

3. measures

4. findings

5. closing the loop

6. analysis

7. report

overview

settings

2006-2007 :: M.A.T. in Science Education :: Graduate Program in NSM

[\[review segment\]](#)

## 2. Assessment Objectives

.	#	Objective & Description	Related Items	Standards and Associations	Student Related
⊕	2.1	<b>Research and Critical Thinking:</b> Courses develop the independent research and critical thinking abilities of our students along with a familiarity with research-based developments in STEM teaching and learning and education reform efforts. Teachers will demonstrate an ability to critically think and independently conduct research in science teaching and learning and education reform efforts.	<b>General Education Outcome Items</b> <ul style="list-style-type: none"> <li>• 11. Advanced Knowledge in Discipline(s)</li> <li>• 12. Guided Research</li> <li>• 13. Independent Research</li> <li>• 14. Ongoing Research</li> <li>• 15. Research &amp; Design</li> <li>• 16. Independent Thought</li> </ul> <b>Strategic Plan Items</b> <ul style="list-style-type: none"> <li>• I-1 Research Enterprise Initiative</li> <li>• II-1 The Education of Leaders</li> <li>• VI-1 K-16 Education</li> <li>• VI-4 Community Outreach</li> <li>• VI-5 University Village</li> </ul> <b>Institutional Priority Items</b> <ul style="list-style-type: none"> <li>• CPT-3 Significantly improve quality of UTD's graduate students</li> </ul>		Yes
⊕	2.2	<b>Content/Pedagogical Content Knowledge:</b> Courses facilitate the development of preK-16 classroom teachers into skilled educators with a depth of content knowledge and pedagogical content knowledge in the sciences and/or mathematics through best practices in science and mathematics education reflective of cutting-edge research and national STEM education reform initiatives.  2.1. Teachers will demonstrate an ability to analyze and select the best practices and methods associated with problem based science learning.  2.2. Teachers will obtain the depth of content knowledge of skilled educators in science and mathematics education reflective of cutting-edge research and national science education reform initiatives.	<b>General Education Outcome Items</b> <ul style="list-style-type: none"> <li>• 10. Foundational Knowledge in Discipline(s)</li> <li>• 11. Advanced Knowledge in Discipline(s)</li> <li>• 12. Guided Research</li> <li>• 16. Independent Thought</li> </ul> <b>Strategic Plan Items</b> <ul style="list-style-type: none"> <li>• II-1 The Education of Leaders</li> <li>• II-3 Investment in People</li> <li>• V-2 Enhanced Quality of Life</li> <li>• VI-1 K-16 Education</li> </ul> <b>Institutional Priority Items</b> <ul style="list-style-type: none"> <li>• CPT-3 Significantly improve quality of UTD's graduate students</li> </ul>		Yes
⊕	2.3	<b>Universality of Knowledge:</b> Courses enable the development of understanding of the connections between college-level content knowledge in mathematics and science and content at the pre-college level to ensure the deep subject level knowledge required of successful teachers. Teachers will demonstrate an ability to connect the content of their high school level science with the	<b>General Education Outcome Items</b> <ul style="list-style-type: none"> <li>• 11. Advanced Knowledge in Discipline(s)</li> <li>• 16. Independent Thought</li> </ul> <b>Strategic Plan Items</b> <ul style="list-style-type: none"> <li>• II-1 The Education of Leaders</li> <li>• V-2 Enhanced Quality of Life</li> <li>• VI-1 K-16 Education</li> </ul> <b>Institutional Priority Items</b>		Yes