

# Unit Assessment Report - Four Column

## Texas Tech University Program - AS\_Mathematics (MA)

**CIP Code:** 27.0101.00

**Degree Program Coordinator:** Kent Pearce

**Coordinator:**

**Purpose Statement:** M.A. Degree in Mathematics. This program consists of 36 hours of graduate work, including 3 hours of credit for a departmental report. The student must complete three sequences chosen from algebra, analysis, geometry, probability and statistics, modeling and applications, and computer literacy. This degree is offered primarily for those students who wish to teach mathematics at the secondary level or at a junior/community college.

Outcomes	Means of Assessment & Criteria / Tasks	Results	Action for Improvement & Documentation of Action for
Program - AS_Mathematics (MA) - Strategic Outcome 1 - Increase enrollment and promote student success: We will grow and diversify our student population in order to improve higher education participation and supply a well-equipped, educated workforce for the State of Texas. (TTU 2010-2020 Strategic Plan Priority 1)  <b>Outcome Types:</b> Strategic  <b>Start Date:</b> 09/01/2009  <b>Outcome Status:</b> Inactive	<b>Assessment Method:</b> Total enrollment in the degree program.		
	<b>Assessment Method:</b> Enrollment of new students in the degree program (new freshman, new transfer students, new graduate)		
	<b>Assessment Method:</b> Mean Class Rank of entering freshmen (if available)		
	<b>Assessment Method:</b> Mean ACT/SAT scores for entering freshmen majors (if available)		
	<b>Assessment Method:</b> Ethnic diversity of the first-time entering freshman class in the major or degree		
	<b>Assessment Method:</b> Mean GRE scores for entering graduate students (if applicable and available)		
	<b>Assessment Method:</b> First-year retention rate for majors or degree seekers		

Outcomes	Means of Assessment & Criteria / Tasks	Results	Action for Improvement & Documentation of Action for
	<p><b>Assessment Method:</b> Second-year retention rate for majors or degree seekers</p> <hr/> <p><b>Assessment Method:</b> Four- and Six-Year Graduation Rates in the major or degree program.</p> <hr/> <p><b>Assessment Method:</b> Master's Graduation Rate</p> <hr/> <p><b>Assessment Method:</b> Doctoral Graduate Rate</p> <hr/> <p><b>Assessment Method:</b> Doctoral Time to Degree Completion</p> <hr/> <p><b>Assessment Method:</b> Total degrees awarded (annual Fall, Spring and Summer) in the major or degree</p> <hr/> <p><b>Assessment Method:</b> For doctoral programs only, total number of Ph.D. awarded (Fall, Spring, and Summer) in the report year, number of other doctorates awarded (Ed.D.'s, DMA's, etc.).</p> <hr/>		
<p>Program - AS_Mathematics (MA) - Strategic Outcome 2 - Strengthen Academic Quality and Reputation: We will attract and retain the best faculty in the world in order to enhance our teaching excellence and grow our number of nationally recognized programs. (TTU 2010-2020 Strategic Plan Priority 2)</p> <p><b>Outcome Types:</b> Strategic</p> <p><b>Start Date:</b> 09/01/2009</p> <p><b>Outcome Status:</b> Inactive</p>	<p><b>Assessment Method:</b> Total enrollment in the degree program</p> <hr/> <p><b>Assessment Method:</b> Enrollment of new students in the degree program (new freshman, new transfer students, new graduate)</p> <hr/> <p><b>Assessment Method:</b> Mean Class Rank of entering freshmen (if available)</p> <hr/> <p><b>Assessment Method:</b> Mean ACT/SAT scores for entering freshmen majors (if available)</p>		

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	<p><b>Assessment Method:</b> Ethnic diversity of the first-time entering freshman class in the major or degree</p>		
	<p><b>Assessment Method:</b> Mean GRE scores for entering graduate students (if applicable and available).</p>		
	<p><b>Assessment Method:</b> First-year retention rate for majors or degree seekers.</p>		
	<p><b>Assessment Method:</b> Second-year retention rate for majors or degree seekers.</p>		
	<p><b>Assessment Method:</b> Four- and Six-Year Graduation Rates in the major or degree program.</p>		
	<p><b>Assessment Method:</b> Master's Graduation Rate</p>		
	<p><b>Assessment Method:</b> Doctoral Graduation Rate</p>		
	<p><b>Assessment Method:</b> Doctoral Time to Degree Completion</p>		
	<p><b>Assessment Method:</b> Total degrees awarded (annual Fall, Spring and Summer) in the major or degree</p>		
	<p><b>Assessment Method:</b> For doctoral programs only, total number of Ph.D.'s awarded (Fall, Spring, and Summer) in the report year, number of other doctorates awarded (Ed.D.'s, DMAs, etc.).</p>		
<p>Program - AS_Mathematics (MA) - Research and Advanced Mathematics - Students will demonstrate knowledge of advanced mathematical topics and conduct</p>	<p><b>Assessment Method:</b> Assessment will utilize surveys of the thesis and report advisory committees</p>	<p>09/14/2011 - Thesis committees were surveyed as to student mastery of advanced concepts and preparedness to conduct independent research.</p>	

Outcomes	Means of Assessment & Criteria / Tasks	Results	Action for Improvement & Documentation of Action for
<p>research.</p> <p><b>Outcome Types:</b> Student Learning</p> <p><b>Start Date:</b> 12/31/2010</p> <p><b>Outcome Status:</b> Active</p>	<p><b>Assessment Method Category:</b> Post-Evaluation</p>	<p>See attached document "Advanced Topics Mastery - Thesis Committee Survey 2011" for</p> <p><b>Result Type:</b> Criterion Met</p> <p><b>Action Status:</b> No Action Needed</p> <p><b>Related Documents:</b> <a href="#">Advanced Topics Mastery - Thesis Committee Survey 2011</a></p>	
	<p><b>Assessment Method:</b> Assessment will utilize surveys of instructors teaching core graduate courses.</p> <p><b>Assessment Method Category:</b> Post-Evaluation</p>	<p>05/31/2009 - Instructors of prelim sequences were surveyed as to their students competency. See attached document "Advanced Topics Mastery - Core Course Survey 2009" for results.</p> <p><b>Result Type:</b> Inconclusive</p> <p><b>Action Status:</b> Action In Progress</p> <p><b>Related Documents:</b> <a href="#">Advanced Topics Mastery - Core Course Survey 2009</a></p>	<p>11/04/2010 - Review the core sequences: curriculum, graduate texts, passage rates</p> <hr/>
		<p>05/31/2008 - Instructors of prelim sequences were surveyed as to their students competency. See attached document "Advanced Topics Mastery - Core Course Survey 2008" for results.</p> <p><b>Result Type:</b> Inconclusive</p> <p><b>Action Status:</b> Action To Be Defined</p> <p><b>Related Documents:</b> <a href="#">Advanced Topics Mastery - Core Course Survey 2008</a></p>	
		<p>05/31/2007 - Instructors of prelim sequences were surveyed as to their students competency. See attached document "Advanced Topics Mastery - Core Course Survey 2007" for results.</p> <p><b>Result Type:</b> Inconclusive</p> <p><b>Action Status:</b> Action To Be Defined</p>	

Outcomes	Means of Assessment & Criteria / Tasks	Results	Action for Improvement & Documentation of Action for
		<p><b>Related Documents:</b>  <a href="#">Advanced Topics Mastery - Core Course Survey 2007</a></p>	
<p>Program - AS_Mathematics (MA) - Oral and Written Communication Skills - Students will demonstrate effective oral and written communication skills.</p> <p><b>Outcome Types:</b> Student Learning</p> <p><b>Start Date:</b> 07/01/2006</p> <p><b>Outcome Status:</b> Active</p>	<p><b>Assessment Method:</b> Assessment will utilize surveys of the thesis and report advisory committees</p> <p><b>Assessment Method Category:</b> Post-Evaluation</p> <p><b>Criterion:</b> 80% or higher of identified students in the surveys will be characterized as having effective oral and written communications.</p>	<p>09/14/2011 - The advisory committees were surveyed as to their students competency. See attached document "Graduate Communication Skills 2011" for results.</p> <p><b>Result Type:</b> Inconclusive</p> <p><b>Action Status:</b> Action To Be Defined</p> <p><b>Related Documents:</b>  <a href="#">Graduate Communication Skills</a></p>	
		<p>05/31/2010 - The advisory committees were surveyed as to their students competency. See attached document "Graduate Communication Skills 2010" for results.</p> <p><b>Result Type:</b> Criterion Met</p> <p><b>Action Status:</b> No Action Needed</p> <p><b>Related Documents:</b>  <a href="#">Graduate Communication Skills</a></p>	
		<p>05/31/2009 - The advisory committees were surveyed as to their students competency. See attached document "Graduate Communication Skills 2009" for results.</p> <p><b>Result Type:</b> Criterion Not Met</p> <p><b>Action Status:</b> Action To Be Defined</p> <p><b>Related Documents:</b>  <a href="#">Graduate Communication Skills</a></p>	
		<p>05/31/2008 - The advisory committees were surveyed as to their students competency. See attached document "Graduate Communication Skills 2008" for results.</p> <p><b>Result Type:</b></p>	

Outcomes	Means of Assessment & Criteria / Tasks	Results	Action for Improvement & Documentation of Action for
		<p>Criterion Met  <b>Action Status:</b>            No Action Needed  <b>Related Documents:</b>  <a href="#">Graduate Communication Skills</a></p> <p>05/31/2007 - The advisory committees were surveyed as to their students competency. See attached document "Graduate Communication Skills 2007" for results.  <b>Result Type:</b>            Criterion Not Met  <b>Action Status:</b>            Action To Be Defined  <b>Related Documents:</b>  <a href="#">Graduate Communication Skills</a></p>	
<p>Program - AS_Mathematics (MA) - Establish Foundation to Properly Teach Math - The prospective teacher of mathematics will demonstrate a mastery of the mathematical material they will be teaching.</p> <p><b>Outcome Types:</b>            Student Learning</p> <p><b>Start Date:</b>            07/01/2006</p> <p><b>Outcome Status:</b>            Active</p>	<p><b>Assessment Method:</b>            M.A. students will take the TExES Exam</p> <p><b>Assessment Method Category:</b>            Standardized Test</p> <p><b>Criterion:</b>            Of those M.A. students taking the TExES Exam, 90% will pass.</p>		
<p>Program - AS_Mathematics (MA) - Teaching Skills - Students employed as GTAs will identify and practice good teaching skills required for both academic and industrial employment.</p> <p><b>Outcome Types:</b>            Student Learning</p> <p><b>Start Date:</b>            07/01/2006</p> <p><b>Outcome Status:</b></p>	<p><b>Assessment Method:</b>            Each semester the department will conduct faculty classroom observations of each GTA assigned to teach an undergraduate class. The qualitative and quantitative reports from the classroom observations will be reviewed and discussed with the GTAs. Each semester the university student evaluations will be administered to each undergraduate course to which a GTA is assigned.</p>	<p>09/14/2011 - Student evaluation scores for GTAs for 2006 -2010.  <b>Result Type:</b>            Criterion Not Met  <b>Action Status:</b>            Action In Progress  <b>Related Documents:</b>  <a href="#">GTA Evaluation Scores 2010</a></p> <p>01/31/2010 - Student evaluation scores for GTAs for 2006 -2009.</p>	<p>09/16/2011 - Meet with each student each semester for whom the previous semester student evaluation scores are below 3.0 to discuss concerns, problems, needs and goals for improvement.</p>

Outcomes	Means of Assessment & Criteria / Tasks	Results	Action for Improvement & Documentation of Action for
Active	<p><b>Assessment Method Category:</b> Course Level Assessment</p> <p><b>Criterion:</b> Of the GTAs surveyed, 80% of them will have a score of 4.0 or higher (out of 5.0) on both the faculty observation reports and the student evaluations.</p>	<p><b>Result Type:</b> Criterion Not Met</p> <p><b>Action Status:</b> Action In Progress</p> <p><b>Related Documents:</b> <a href="#">GTA Evaluation Scores 2009</a></p>	<p>11/04/2010 - Revise the faculty evaluation procedures to add a quantitative component to the faculty classroom observations</p> <hr/> <p>11/04/2010 - Meet with each student each semester for whom the previous semester student evaluation scores are below 3.0 to discuss concerns, problems, needs and goals for improvement.</p> <hr/>
	<p><b>Assessment Method:</b> All GTA's without prior mathematics teaching experience (at least one year) at either secondary or college levels will take Math 5360: Special Topics in Pedagogy. 80% will pass with a grade of B or higher. Assessment will utilize results from pre- and post-course surveys.</p>	<p>12/31/2009 - In 2009-10, 100% of the students enrolled in Math 5360: Special Topics in Pedagogy passed the course with a B or higher.</p> <p><b>Result Type:</b> Criterion Met</p> <p><b>Action Status:</b> No Action Needed</p>	
	<p><b>Criterion:</b> B or higher</p>	<p>12/31/2008 - In 2008-09, 100% of the students enrolled in Math 5360: Special Topics in Pedagogy passed the course with a B or higher.</p> <p><b>Result Type:</b> Criterion Met</p> <p><b>Action Status:</b> No Action Needed</p>	
		<p>12/31/2007 - In 2007-08, 100% of the students enrolled in Math 5360: Special Topics in Pedagogy passed the course with a B or higher.</p> <p><b>Result Type:</b> Criterion Met</p> <p><b>Action Status:</b> No Action Needed</p>	
		<p>12/31/2006 - In 2006-07, 100% of the students enrolled in Math 5360: Special Topics in Pedagogy passed the course with a B or higher.</p> <p><b>Result Type:</b></p>	

Outcomes	Means of Assessment & Criteria / Tasks	Results	Action for Improvement & Documentation of Action for
		Criterion Met <b>Action Status:</b> No Action Needed	
Program - AS_Mathematics (MA) - Pedagogy and Curriculum with Technology - Students will recognize and discriminate pedagogical and curriculum issues involved with the use of mathematics-specific technologies. <b>Outcome Types:</b> Student Learning <b>Start Date:</b> 07/01/2006 <b>Outcome Status:</b> Inactive	<b>Assessment Method:</b> Assessment will utilize a final program student self efficacy survey and interviews with randomly chosen graduating seniors. <b>Assessment Method Category:</b> Survey - Student		