

TMU Student Assessment Data Summary
 from Fall, 2014 to Fall, 2017, for the
BA in Mathematics Degree Programs

A. Mathematics Core Program-Level Learning Outcomes

ID:	Description:	Weight	Num. Obs.	Distribution of Observations							% at 5, 6 or 7	Avg.	95% Confidence Interval		Stat. Signif. Means?	
				1	2	3	4	5	6	7			Low	High		
MAT10	Effectively prepare and give oral presentations from research literature in mathematics.															
MAT10			28									100	5.73			NO
MAT10.1	Mathematics Journal Article Presentation	65%	26	0	0	0	0	9	17	0	100	5.65	5.46	5.84		
MAT10.2	Senior Survey	7%	2	0	0	0	0	0	1	1	100	6.5	5.52	7.48		
MAT11	Demonstrate mastery of the Calculus.															
MAT11			34								88.2	5.48				NO
MAT11.3	Senior Survey	7%	1	0	0	0	0	0	1	0	100	6	6	6		
MAT11.7	Scanned Final Exam from Calculus III	45%	18	0	0	0	3	9	5	1	83.3	5.22	4.85	5.59		
MAT11.8	ETS MFT Mathematics – Calculus Assessment Indicator	20%	15	0	0	1	0	0	13	1	93.3	5.87	5.45	6.29		
MAT12	Demonstrate mastery of Elementary Linear Algebra.															
MAT12			27								85.2	5.12				NO
MAT12.3	Senior Survey	7%	2	0	0	0	0	1	1	0	100	5.5	4.52	6.48		
MAT12.4	TMC Graduate Survey	10%	1	0	0	0	0	1	0	0	100	5	5	5		
MAT12.7	Scanned Final Exam from Linear Algebra	45%	9	0	0	0	3	3	3	0	66.7	5	4.43	5.57		
MAT12.8	ETS MFT Mathematics – Algebra Assessment Indicator	20%	15	0	0	1	0	8	5	1	93.3	5.33	4.87	5.79		

MAT13	Demonstrate mastery of Elementary Differential Equations.														
MAT13			22								90.9	5.63			NO
MAT13.2	Senior Survey	7%	4	0	0	0	0	2	1	1	100	5.75	4.81	6.69	
MAT13.3	TMC Graduate Survey	10%	1	0	0	0	0	1	0	0	100	5	5	5	
MAT13.6	Scanned Final Exam from the Differential Equations Course	65%	17	0	1	0	1	5	4	6	88.2	5.71	5.06	6.36	

B. Applied Mathematics Emphasis Program-Level Learning Outcomes

ID:	Description:	Weight	Num. Obs.	Distribution of Observations							% at 5, 6 or 7	Avg.	95% Confidence Interval		Stat. Signif. Means?
				1	2	3	4	5	6	7			Low	High	
MATAPP1	Demonstrate a working knowledge of probability theory.														
MATAPP1			10								100	5.7			N/A
MATAPP1.1	Scanned Final Exam	65%	10	0	0	0	0	3	7	0	100	5.7	5.40	6.00	
MATAPP2	Use probability and statistical inferences to draw conclusions.														
MATAPP2			145								82.8	5.19			YES
MATAPP2.1	Scanned Final Exam	40%	56	3	1	4	7	19	18	4	73.2	4.93	4.55	5.31	
MATAPP2.2	Project Report	25%	89	4	0	2	4	9	63	7	88.8	5.60	5.34	5.86	
MATAPP3	Demonstrate a basic working knowledge of the concepts of numerical analysis through the use of computers.														
MATAPP3			2								50.0	4.5			N/A
MATAPP3.2	Senior Survey	7%	2	0	0	1	0	0	1	0	50.0	4.5	1.56	7.44	
MATAPP4	Demonstrate a working knowledge of mathematical applications in a variety of applied fields.														
MATAPP4			5								100	5.6			N/A
MATAPP4.1	Scanned Final Exam	65%	5	0	0	0	0	2	3	0	100	5.6	5.12	6.08	
MATAPP5	Demonstrate mastery of the various methods of discrete mathematics.														
MATAPP5			22								100	5.5			N/A
MATAPP5.1	Scanned Final Exams	65%	22	0	0	0	0	11	11	0	100	5.5	5.29	5.71	

C. Mathematics Education Emphasis Program-Level Learning Outcomes

ID:	Description:	Weight	Num. Obs.	Distribution of Observations							% at 5, 6 or 7	Avg.	95% Confidence Interval		Stat. Signif. Means?
				1	2	3	4	5	6	7			Low	High	
MATED3	Demonstrate a working knowledge of fundamental algebraic structures (e.g., groups, rings, and fields).														
MATED3			5								80.0	5.35			NO
MATED3.1	Scanned Final Exam	65%	3	0	0	0	1	0	2	0	66.7	5.33	4.02	6.64	
MATED3.2	Senior Survey	7%	1	0	0	0	0	0	1	0	100	6	6	6	
MATED3.3	TMC Graduate Survey	10%	1	0	0	0	0	1	0	0	100	5	5	5	
MATED5	Demonstrate a working knowledge of number theory.														
MATED5			9								88.9	5.43			NO
MATED5.1	Scanned Final Exam	65%	7	0	0	0	1	3	2	1	85.7	5.43	4.71	6.15	
MATED5.2	Senior Survey	7%	1	0	0	0	0	0	1	0	100	6	6	6	
MATED5.3	TMC Graduate Survey	10%	1	0	0	0	0	1	0	0	100	5	5	5	
MATED7	Demonstrate a basic working knowledge of the nature and applications of discrete structures.														
MATED7			1								100	7			N/A
MATED7.3	TMC Graduate Survey	10%	1	0	0	0	0	0	0	1	100	7	7	7	
MATED8	Demonstrate a basic mastery of the principles of Euclidean and non-Euclidean geometries.														
MATED8			6								83.3	5.56			NO
MATED8.1	Scanned Final Exam	65%	5	0	0	1	0	0	4	0	80.0	5.4	4.22	6.58	
MATED8.2	Senior Survey	7%	1	0	0	0	0	0	0	1	100	7	7	7	

D. Pure Mathematics Emphasis Program-Level Learning Outcomes

				Distribution of Observations							95% Confidence Interval			Stat. Signif. Means?	
ID:	Description:	Weight	Num. Obs.	1	2	3	4	5	6	7	% at 5, 6 or 7	Avg.	Low	High	
MATPR1	Demonstrate a working knowledge of fundamental algebraic structures (e.g., groups, rings, and fields).														
MATPR1			8								100	5.5			N/A
MATPR1.1	Scanned Final Exam	65%	8	0	0	0	0	4	4	0	100	5.5	5.13	5.87	
MATPR2	Demonstrate mastery of the rigorous development and theory of calculus.														
MATPR2			3								100	6			N/A
MATPR2.1	Scanned Final Exam	65%	3	0	0	0	0	0	3	0	100	6	6	6	
MATPR4	Demonstrate a working knowledge of number theory.														
MATPR4			7								85.7	5.43			N/A
MATPR4.1	Scanned Final Exam	65%	7	0	0	0	1	3	2	1	85.7	5.43	4.71	6.15	
MATPR6	Demonstrate a basic working knowledge of the properties of complex numbers and complex-valued functions.														
MATPR6			5								100	6			N/A
MATPR6.1	Scanned Final Exam	65%	5	0	0	0	0	1	3	1	100	6	5.38	6.62	