School of Science, Mathematics, Technology & Health   Name: _____

Department of Mathematics   Emphasis: _____

B.A. in Mathematics Education Academic Tracking Sheet   Year started TMU: _____

(Corresponds with the 2016-2017 Academic Catalog)

> Students are required to complete 26 core Mathematics units, 24-25 emphasis units, 58 General Education units, and 13-14 elective units. A **minimum total of 122 units** is required to graduate.

General Education Requirements

Scripture Courses	Term
B101 Old Testament Survey I (3)	
B102 Old Testament Survey II (3)	
B121 Essentials of Christian Thought (3)	
B201 New Testament Survey I (3)	
B202 New Testament Survey II (3)	
BTH321 Christian Theology I (3)	
BTH322 Christian Theology II (3)	

Worldview & Skills Courses	Term
C100 Spoken Communication (3)	
E110 English Composition (3)	
Essentials of Literature (3) (Choose one *)	
General Literature Elective (3) (Choose one * or **)	
ECN200 Essentials of Economics & Society (3)	
GS150 Essentials of Geology (3)	
or LS150 Essentials of Biology (3)	
GS150 Essentials of Geology Lab (1)	
or LS150L Essentials of Biology Lab (1)	
H211 Essentials of World History I (3)	
H212 Essentials of World History II (3)	
H230 Essentials of U.S. History (3)	
MA240 Critical Thinking Quantitative Analysis (3)	
MU190 Essentials of Music & Art (3)	
P311 Essentials of Philosophy (3)	
POL220 U.S. Government (3)	

General Education Substitutions

* Essentials of Literature Courses	
E211/E212 English Literature I or II	
E221/E222 World Literature I or II	
E231/E232 American Literature I or II	

**General Literature Elective Courses	
E313 Age of Romanticism	E405 Shakespeare
E314 Victorian Age	E406 Milton
E334 The Short Story	E415 Contemporary Lit
E335 The English Novel	E416 Modern British Writers
E374 Studies in Jane Austen	E425 20th Century American Lit.
E404 Studies in John Calvin	E453 Psychoanalytic Crit.

Other Substitutions for Mathematics majors***
For B102: IBEX367
For B201: IBEX377
For MU190: ART338
For H211/H212: Pass World Hist. Competency Exam & 3 units of Upper Division History
For MA240: MA101, MA121, MA262

Additional Substitutions for Mathematics Ed. majors
For P311: P321

***Substitutions: Refer to G.E. Substitutions and Waivers in the Academic Catalog

TMU Graduation Requirements (from the Academic Catalog):

The Master's University grants bachelor's degrees (i.e. Bachelor of Arts, Bachelor of Music, and Bachelor of Science) to students who satisfy the graduation requirements described below.

1. Complete a minimum of 122 semester units of credit.
2. Complete a minimum of 40 semester units in upper division courses.
3. Satisfy all General Education requirements.
4. Complete the required curriculum for the chosen major field(s) of study.
5. Maintain a minimum GPA of 2.00 (cumulative) in all TMU courses. (Some majors have different GPA requirements. Please see your department for details.)
6. Complete a minimum of 32 semester units of non-Directed Studies coursework at TMU or 32 semester units of TMU Online major courses.
7. Complete at least 12 of the final 24 semester units at TMU.

All students must be aware that they undertake complete responsibility for managing their progress toward graduation. Faculty advisors will attempt to assist in this process; however, given the fluidity of student progress, each student must ultimately assume responsibility for completing all graduation requirements. This checklist is designed as an aid to help students manage their progress, but it does NOT replace the Academic Catalog. In any case where this checklist contradicts the catalog, the catalog issued during the student's first semester at TMU shall be considered the official degree criteria

Mathematics Core Courses		
Units	**Term**	
3		MA111 Intro. to Scientific Programming
4		MA121 Calculus I
4		MA122 Calculus II
4		MA221 Calculus III
3		MA231 Linear Algebra
3		MA282 Ordinary Differential Equations
3		MA302 Intro. to Mathematical Proof
1		MA400 Mathematics Seminar
1		MA400 Mathematics Seminar
1		MA412 Integrated Review
26		

Emphasis Courses

Pure Mathematics		
Units	Term	
1		MA222 Calculus IV
3		MA344 Modern Geometry
3		MA355 Number Theory/History of Math
3		MA383 Complex Analysis
3		MA445 Real Analysis I
3		MA453 Abstract Algebra I
3		MA482 Topics in Mathematics
Additional approved *upper division Mathematics courses:*		
3		
3		
25	*Total units required for emphasis*	

Mathematics Education		
Units	Term	
3		MA253 Discrete Mathematics
3		MA262 Elementary Statistics
3		MA344 Modern Geometry
3		MA355 Number Theory/History of Math
3		MA425 Mathematical Modeling
3		MA453 Abstract Algebra I
Additional approved *upper division Mathematics courses:*		
3		
3		
24	*Total units required for emphasis*	

Applied Mathematics		
Units	Term	
1		MA222 Calculus IV
3		MA253 Discrete Mathematics
3		MA366 Probability
3		MA383 Complex Analysis
3		MA425 Mathematical Modeling
3		MA463 Intro. to Applied Mathematics
3		MA464 Methods in Applied Mathematics
3		MA482 Topics in Mathematics
Additional approved *upper division Mathematics course:*		
3		
25	*Total units required for emphasis*	