Name:	
Emphasis:	

School of Science, Mathematics, Technology & Health

Department of Biological & Physical Sciences
B.S. in Biology Academic Tracking Sheet
New G.E. Requirements (Catalog Years beginning Fall 2018)

Students are required to complete 41 Biology Core units, 23 Biology Emphasis units (see pages 2-3), 33 General Education units, and 21 Bible units. A **minimum total of 122 units** are required to graduate.

Biology Core Courses		
Units	Term	
4		CH151 General Chemistry I
4		CH152 General Chemistry II
4		CH351 Organic Chemistry I
4		LS151 Organismic Biology
1		LS220 Research Methods
4		LS252 Cell Biology
4		LS342 Genetics & Genomics
3		LS372 Origins
1		LS420 Seminar in Biology
1		LS422 Senior Capstone
3		MA262 Elementary Statistics
4		PS251 General Physics I
4		PS252 General Physics II
41		

4		r 5252 General Filysics II
41		_
Biblica	ıl Studie	<u>s</u>
Units	Term	
3		B121 Essentials of Christian Thought
3		B101 Old Testament Survey I
3		B102 Old Testament Survey II
3		B201 New Testament Survey I
3		B202 New Testament Survey II
3		BTH321 Christian Theology I
3		BTH322 Christian Theology II

General Education		
Units	Term	
3		C100 Spoken Communication
3		E110 English Composition
3		ECN200 Essentials of Econ. & Society
3		H211 Essentials of World History I
3		H212 Essentials of World History II
3		H230 Essentials of U.S. History
3		MU190 Essentials of Music & Art
3		P311 Essentials of Philosophy
3		POL220 U.S. Government
3		Literature Survey (Choose one below*)
3		Literature Elective (Choose one below**)
33		

	General Electives			
Units	Term			
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*Literature Survey Courses	
E211/E212 English Literature I or II	
E211/E222 World Literature I or II	
E231/E232 American Literature I or II	

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

Emphasis Courses

Cellular & Molecular Biology		
Units	Term	
4		LS351 Molecular Genetics
4		CH352 Organic Chemistry II
4		CH461 Biochemistry
11 cred	dits of th	e following*
3		MA121 Calculus I
4		LS331 Developmental Biology
4		LS341 Ecology
4		LS355 Parasitology
4		LS361 Immunology
4		LS362 Medical Microbiology
3		LS388 Mathematical Ecology
4		LS398 Plant Science
1-4		LS428 Research in Biology
23	Total u	nits required for emphasis

Natura	Natural History/Environmental Biology		
Units	Term		
4		LS341 Ecology	
4		LS318 Conservation Bio. & Sustainability	
4		LS398 Plant Science	
11 cred	dits of th	e following*	
4		CH352 Organic Chemistry II	
4		LS312 Animal Physiology	
4		LS346 Marine Biology	
3-4		LS348 Biology Field Studies**	
4		LS355 Parasitology	
4		LS362 Medical Microbiology	
4		LS375 Vertebrate Paleontology	
3		LS388 Mathematical Ecology	
1-4		LS428 Research in Biology	
23	Total u	nits required for emphasis	

Pre-M	Pre-Medical/Pre-Dentistry/Pre-Allied Health		
Units	Term		
4		LS341 Ecology	
4		CH352 Organic Chemistry II	
4		CH461 Biochemistry	
11 cred	dits of th	e following*	
3		MA121 Calculus I	
4		LS321 Human Anatomy	
4		LS322 Human Physiology	
4		LS331 Developmental Biology	
4		LS351 Molecular Genetics	
4		LS352 Medical Physiology	
4		LS355 Parasitology	
4		LS361 Immunology	
4		LS362 Medical Microbiology	
4		LS398 Plant Science	
1-4		LS428 Research in Biology	
23	Total u	nits required for emphasis	

Anima	Animal Science/Pre-Veterinary Medicine		
Units	Term		
4		LS312 Animal Physiology	
4		LS341 Ecology	
4		CH352 Organic Chemistry II	
11 cred	dits of th	e following*	
3		MA121 Calculus I	
4		CH461 Biochemistry	
4		LS302 Vertebrate Anatomy & Systematics	
4		LS318 Conservation Bio. & Sustainability	
4		LS331 Developmental Biology	
3		LS346 Marine Biology	
3-4		LS348 Biology Field Studies**	
4		LS355 Parasitology	
4		LS361 Immunology	
4		LS362 Medical Microbiology	
4		LS375 Vertebrate Paleontology	
3		LS388 Mathematical Ecology	
4		LS398 Plant Science	
1-4		LS428 Research in Biology	
23	Total u	nits required for emphasis	

Pre-Nu	Pre-Nursing		
Units	Term		
4		LS321 Human Anatomy	
4		LS322 Human Physiology	
4		LS362 Medical Microbiology	
11 cred	dits of th	e following*	
3		MA121 Calculus I	
4		CH352 Organic Chemistry II	
4		CH461 Biochemistry	
3		LS231 Human Growth & Development	
4		LS331 Developmental Biology	
4		LS352 Medical Physiology	
4		LS361 Immunology	
1-4		LS428 Research in Biology	
3		CH260 Intro. to Gen., Org. & Biochemistry	
23	Total u	nits required for emphasis	

Paleontology				
Units	Term			
4		GS150 Essentials of Geology		
4		LS341 Ecology		
4		LS375 Vertebrate Paleontology		
11 credits of the following*				
3		MA121 Calculus I		
4		CH352 Organic Chemistry II		
4		GS151 Historical Geology		
3		LS302 Vertebrate Anatomy & Systematics		
3		LS307 Biology of Dinosaurs		
4		LS346 Marine Biology		
4		LS398 Plant Science		
1-4		LS428 Research in Biology		
23	Total units required for emphasis			

General Biology				
Units	Term			
4		LS341 Ecology		
19 units upp	per division	biology, chemistry, and geology		
electives*				
23	Total units required for emphasis			

Minor in Biology				
Units	Term			
4		CH151 General Chemistry I		
4		CH152 General Chemistry II		
4		LS151 Organismic Biology		
4		LS252 Cell Biology		
3		LS372 Origins		
6 units upper division biology & chemistry electives*				
25	Total units required for minor			

^{*} Students can choose from any upper division courses that begin with LS, GS, or CH.

TMU Graduation Requirements (from the 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 and in one's major(s).
- 6. Complete a minimum of 32 semester units of non-Directed Studies coursework at TMU or 32 semester units of TMU Degree Completion Program 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 their graduation progress.

^{**} LS348 Biological Field Studies – Topics vary and can be repeated for credit.