

IN/AIVIL.

TMU Graduation Requirements

Complete a minimum of 122 semester units of credit.

Complete a minimum of 40 semester units in upper division courses. Includes 300 & 400 level courses.

Satisfy all General Education requirements.

Complete the required curriculum for the chosen major's field(s) of study.

Maintain a minimum GPA of 2.00 (cummulative) in all TMU Courses. Some majors have different GPA requirements.

Complete a minimum of 32 semester units at TMU, not including Directed Studies coursework.

A maximum of 12 units can be transferred to complete degree requirements after the last 12 units taken at TMU.

GENERAL EDUCATION

SCRIPTURE SET Students who transfer with 24 or more units are required to take 1 Bible Gen Ed. per semester of enrollment at TMU; starting with all survey courses (B101, B102, B201, B202; any order), followed by BTH321/322 and B121. All other students must complete all Bible GE.

Units	ı erm	
3		B121 Essentials of Christian Thought
3		B101 Old Testament Survey I
3		B102 Old Testament Survey II*
3		B201 New Testament Survey I*

Units	Term	
3		B202 New Testament Survey II
3		BTH321 Christian Theology I
3		BTH322 Christian Theology II

21 Total *Or Non-Biblical Studies: IBEX300 with approval

WORLDVIEW AND SKILLS SE	$oldsymbol{T}$ Depending on the student's major,	, certain G.E. requirements allow for substitutions.
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Units	Term	Course	Substitution
			<u>Biblical Studies</u> : BMN310 Message Prep for Women, or BMN370 Sermon Prep & Delivery.
3		C100 Spoken Communication	Business Administration & Marketing Media: MGT330 Business Communication.
			BM Music: not required.
			700+ score (Evidence-Based Reading & Writing section of SAT I)
			3+ score (AP Language & Composition exam)
2		E110 English Composition	3+ score (AP Literature & Composition exam)
3		E110 English Composition	31+ score (English section of the ACT)
			10+ score (WritePlacer exam from CollegeBoard)
			5+ score (Criterion Online Writing Evaluation Service from ETS)
3		E General Literature Elective	Does not include: E330, E353, E364, E435, E436, E491A, E491B. <u>BM Music</u> : not required.
2		Facentials of Liberature	E211 English Literature I, E212 English Literature II, E221 World Literature I, E222 World
3		Essentials of Literature	Literature II, E231 American Literature I, or E232 American Literature II.
3		ECN200 Essentials of Economics & Society	BM Music: not required.
3		GS150 Essentials of Geology	Biological & Physical Science : LS151 Organismic Biology.
5		or LS150 Essentials of Biolog	Kinesiology & Physical Education : LS321 Anatomy & LS322 Physiology.
1		GS150 Essentials of Geology Lab	Biological & Physical Science : LS151 Organismic Biology.
1		or LS150 Essentials of Biology Lab	<u>Kinesiology & Physical Education</u> : LS321 Anatomy & LS322 Physiology.
3		H211 Essentials of World History I	<u>ALL</u> : Pass World History Competency Exam & 3 units of Upper Division History.
3		H212 Essentials of World History II	BM Music: H211 or H212. ALL: Both req. for Single Subject Teaching Credential.
3		H230 Essentials of U.S. History	n/a
			<u>Business Administration</u> & <u>Marketing Media</u> : BUS310 Statistics for Business.
3		MA240 Critical Thinking & Quantitative Analysis	<u>Computer Science</u> : not required.
			ALL: MA101 Algebra & MA102 Trigonometry, or MA121 Calculus, or MA260 Statistics.
2		MUIA OO Feessatisle of Massic C. Aut	Biblical Studies : BMN333/MU333 Worship & Songs of the Church.
3		MU190 Essentials of Music & Art	<u>Music</u> : MU295 Music & Art for Musicians. <u>ALL</u> : ART338 Art History of the Western World.
			English Ed., History Ed., Liberal Studies/Teacher Ed., Life Sciences Ed., Mathematics
3			Ed., Music Ed.: P321 History and Philosophies of Education.
		P311 Essentials of Philosophy	Music Production: BCW367 Ethics. Biblical Studies: BCW363 Apologetics.
			Business Administration & Marketing Media: BUS330 Ethics.
		DOL 220 LLS. Covernment	U.S. citizens (regardless of current country of residence) and resident aliens are NOT
3		POL220 U.S. Government	expempt from the POL220 requirement.

40 Total (37 for Computer Science majors, 28 for BM Music majors.)

MAJOR: 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 and Genomics*
3		LS372 Origins

Units	Term	
1		LS420 Seminar in Biology
1		LS422 Senior Capstone
3		MA260 Elementary Statistics
4		PS251 General Physics I*,**
4		PS252 General Physics II*, ***

41 Total *With corresponding lab.

EMPHASIS: ANIMAL SCIENCE/PRE-VETERINARY

Units	Term
4	CH352 Organic Chemistry II*
4	LS312 Animal Physiology*
One of t	the following:
4	LS241 Ecology and Environmental Science*
4	LS341 Ecology*
Three of	f the following:

4	CH461 Biochemistry*
4	LS302 Comparative Anatomy*
4	LS318 Conservation Biology & Sustainability*
4	LS331 Developmental Biology*
4	LS341 Ecology*
4	LS346 Marine Biology*
3-4	LS348 Bio. Field Studies**
4	LS355 Parasitology*
4	LS361 Immunology*
4	LS362 Medical Microbiology*
4	LS375 Vertebrate Paleontology*
4	LS388 Mathematical Ecology*
1-4	LS428 Research in Biology
3	MA121 Calculus I

⁶⁴ Total (including Core courses).

EMPHASIS: CELLULAR & MOLECULAR BIOLOGY

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Units	Units Term		
4	CH352 Organic Chemistry II*		
4	CH461 Biochemistry*		
One of t	he following:		
4	LS341 Ecology*		
4	LS351 Molecular Genetics*		
Three of	the following:		
4	LS331 Developmental Biology*		
4	LS355 Parasitology*		
4	LS361 Immunology*		
4	LS362 Medical Microbiology*		
4	LS388 Mathematical Ecology*		
1-4	LS428 Research in Biology		
3	MA121 Calculus I		

⁶⁴ Total (including Core courses).

EMPHASIS: LIFE SCIENCES EDUCATION

Units Term		
2		ED400 Foundations of Education* (Or ED101,
3		ED202, <u>and</u> ED301)
3		P321 History & Philosophies of Education*, **
14		Biology, Chemistry, & Geology electives

One of the following

3	2	ED202 Curriculum Instruction & Learning
	Theory*	
2	2	ED301 Cultural & Linguistic Diversity in
	5	Teaching*

64 Total (including Core courses).

EMPHASIS: NATURAL HISTORY/ ENVIRONMENTAL BIOLOGY

Units Term		
4		LS318 Conservation Biology & Sustainability*
4		GS452 Environmental Geoscience*

One of the following:

4	LS241 Ecology and Environmental Science*
4	LS341 Ecology*

Three of the following:

4	CH352 Organic Chemistry II*
4	GS151 Historical Geology*
4	GS251 Mineralogy*
4	LS302 Comparative Geoscience*
4	LS312 Animal Physiology*
4	LS341 Ecology*
4	LS346 Marine Biology*
4	LS348 Bio. Field Studies**
4	LS355 Parasitology*
4	LS362 Medical Microbiology*
4	LS375 Vertebrate Paleontology*
1-4	LS428 Research in Biology

64 Total (including Core courses).

Students are required to complete all GE requirements, all Major requirements, and necessary electives to meet a minimum of 122 units and 40 upper division units.

^{**}Optional substitute: PS211 College Physics I.

^{***}Optional substitute: PS212 College Physics II.

^{*}With corresponding lab.

^{**}Can be repeated for credit.

^{*}With corresponding lab.

^{*}Teaching Credential pre-req., requires B- or better.

^{**}Fulfills G.E. requirement for P311.

^{*}With corresponding lab.

^{**}Can be repeated for credit.

MAJOR: 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 and Genomics*
3		LS372 Origins

Units	Term	
1		LS420 Seminar in Biology
1		LS422 Senior Capstone
3		MA260 Elementary Statistics
4		PS251 General Physics I*,**
4		PS252 General Physics II*, ***

41 Total *Wit

EMPHASIS: PALEONTOLOGY/NATURAL HISTORY

Units	Term	
4		GS150 Essentials of Geology*, **
4		LS241 Ecology and Environmental Science*
4		LS341 Ecology*
4		LS375 Vertebrate Paleontology*
Three of	the following:	
4		CH352 Organic Chemistry II*
4		GS151 Historical Geology*
4		GS472 Sedimentology & Stratigraphy*
4		LS302 Comparative Anatomy*
3		LS307 Biology of Dinosaurs
3		LS346 Marine Biology
1-4		LS428 Research in Biology
3		MA121 Calculus I

⁶⁴ Total (including Core courses).

EMPHASIS: **PRE-ALLIED HEALTH**EMPHASIS: **PRE-DENTISTRY**EMPHASIS: **PRE-MEDICINE**

Units Term

4	CH352 Organic Chemistry II*
4	CH461 Biochemistry*

One of the following:

4	LS241 Ecology and Environmental Science*
4	LS341 Ecology*

Three of the following:

4	LS321 Human Anatomy*
4	LS322 Human Physiology*
4	LS331 Developmental Biology*
4	LS341 Ecology*
4	LS351 Molecular Genetics*
4	LS352 Medical Physiology*
4	LS355 Parasitology*
4	LS361 Immunology
4	LS362 Medical Microbiology*
1-4	LS428 Research in Biology
3	MA121 Calculus I

⁷⁴ Total (including Core courses).

EMPHASIS: PRE-NURSING

Units	Term	
4		LS321 Human Anatomy*
4		LS322 Human Physiology*
4		LS362 Medical Microbiology*

Three of the following:

4	CH352 Organic Chemistry II*
4	CH461 Biochemistry II*
3	LS231 Human Growth & Development
4	LS331 Developmental Biology*
4	LS352 Medical Physiology*
4	LS361 Immunology*
1-4	LS428 Research in Biology
3	MA121 Calculus I

⁶⁴ Total (including Core courses).

^{*}With corresponding lab.

**Optional substitute: PS211 College Physics I.

^{***}Optional substitute: PS212 College Physics II.

^{*}With corresponding lab.

^{**}Fulfills G.E. requirement

^{*}With corresponding lab.

^{*}With corresponding lab.