



**TMU Graduation Requirements**

Complete a minimum of 121 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 (cumulative) 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 transferring with ≥ 61 total units may need to satisfy fewer than 7 Bible G.E. courses as evaluated and confirmed by the Registrar's Office prior to the start of the student's first undergraduate semester. All other students must satisfy all 7 Bible G.E.*

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*

Units	Term	
3		B202 New Testament Survey II
3		BTH321 Christian Theology I
3		BTH322 Christian Theology II
21	Total	<i>*Or Non-Biblical Studies: IBEX300 with approval</i>

**WORLDVIEW AND SKILLS SET** *Depending on the student's major, certain G.E. requirements allow for substitutions.*

Units	Term	Course	Substitution
3		C100 Spoken Communication	<u>Biblical Studies</u> : BMN312 Women Teaching Women, or BMN371 Sermon Preparation. <u>Business Administration, Entrepreneurship, Marketing Media, &amp; Sport Management</u> : MGT330 Business Communication. <u>BM Music</u> : not required.
3		E110 English Composition	31+ score ACT: English Section 3+ score AP Language & Composition Exam 3+ score AP Literature & Composition Exam 5+ score Criterion Online Writing Evaluation Service from ETS 700+ score SAT 1: Evidence-Based Reading & Writing section 10+ score WriterPlacer exam from Collegeboard
3		ECN200 Essentials of Economics & Society	<u>BM Music</u> : not required.
3		H211 Essentials of World History I	<u>ALL</u> : Pass World History Competency Exam & 3 units of Upper Division History units.
3		H212 Essentials of World History II	<u>BM Music</u> : H211 or H212. <u>Single Subject Teaching Credential</u> : both H211 & H212.
3		H230 Essentials of U.S. History	n/a
3		Literature Elective	Does not include: E330, E322, E353, E364, E435, E436, E491A, E491B. <u>BM Music</u> : not required.
3		Literature Survey	E200 Great Works of Literature Survey, E211 English Literature I, E212 English Literature II, E221 World Literature I, E222 World Literature II, E231 American Literature I, or E232 American Literature II.
3		LS150 Essentials of Biology or GS150 Essentials of Geology	<u>Biological &amp; Physical Science</u> : LS151 Organismic Biology, LS151L Organismic Biology Lab. <u>Engineering</u> : CH151 General Chemistry I, CH151L General Chemistry I Lab.
1		LS150L Essentials of Biology Lab or GS150L Essentials of Geology Lab	<u>Kinesiology</u> : LS151 Organismic Biology, LS151L Organismic Biology Lab.
3		MA240 Critical Thinking & Quantitative Analysis	<u>Business Administration, Entrepreneurship, Marketing Media, &amp; Sport Management</u> : BUS310 Statistics for Business. <u>Computer Science, Engineering, &amp; Mathematics</u> : not required. <u>ALL</u> : MA101 College Algebra & MA102 Trigonometry, or MA121 Calculus, or MA260 Elementary Statistics.
3		MU190 Essentials of Music & Art	<u>ALL</u> : ART338 Art History of the Western World. <u>Biblical Studies</u> : BMN333/MU333 Worship & Songs of the Church. <u>Music</u> : MU295 Music & Art for Musicians.
3		P311 Essentials of Philosophy	<u>Biblical Studies</u> : BCW363 Apologetics. <u>Music Production</u> : BCW367 Ethics. <u>Business Administration, Entrepreneurship, Marketing Media, &amp; Sport Management</u> : BUS330 Business Ethics. <u>English Ed., History Ed., Liberal Studies/Elementary Ed., Liberal Studies/Special Ed., Life Sciences Ed., Mathematics Ed., Music Ed.</u> : P321 History and Philosophies of Education.
3		POL220 U.S. Government	Only waived for non-U.S. citizens and non-resident aliens. U.S. Citizens (regardless of current country of residence) and resident aliens are NOT exempt.
40	Total	37 for Computer Science, Engineering, & Mathematics 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 Lab
4		LS252 Cell Biology*
4		LS342 Genetics and Genomics*
3		LS372 Origins

Units	Term	
1		LS420 Senior Seminar in Biology
1		LS422 Senior Capstone
3		MA260 Elementary Statistics
4		PS211 College Physics* or PS251 University Physics I*
4		PS212 College Physics II* or PS252 University Physics II*
41	Total	*With corresponding lab.

**EMPHASIS: ANIMAL SCIENCE/PRE-VETERINARY**

Units	Term	
4		LS341 Ecology*
4		LS312 Animal Physiology*
4		CH352 Organic Chemistry II*

|| units of the following:

4		CH461 Biochemistry*
3		CS348S Data Science for Scientists and Engineers
4		LS302 Comparative Anatomy*
4		LS318 Conservation Biology & Sustainability*
4		LS331 Developmental Biology*
4		LS346 Marine Biology*
3-4		LS348 Biological Field Studies**
4		LS355 Parasitology*
4		LS361 Immunology*
4		LS362 Medical Microbiology*
4		LS375 Vertebrate Paleontology*
4		LS381 Neurobiology*
1-4		LS428 Research in Biology

64 Total (including Core courses).

\*With corresponding lab.

\*\*Can be repeated for credit.

**EMPHASIS: CELLULAR & MOLECULAR BIOLOGY**

Units	Term	
4		CH352 Organic Chemistry II*
4		CH461 Biochemistry*
4		LS351 Molecular Genetics*

|| units of the following:

3		CS348S Data Science for Scientists and Engineers
4		LS331 Developmental Biology*
4		LS355 Parasitology*
4		LS361 Immunology*
4		LS362 Medical Microbiology*
4		LS381 Neurobiology*
1-4		LS428 Research in Biology

64 Total (including Core courses).

\*With corresponding lab.

**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 Lab
4		LS252 Cell Biology*
4		LS342 Genetics and Genomics*
3		LS372 Origins

Units	Term	
1		LS420 Senior Seminar in Biology
1		LS422 Senior Capstone
3		MA260 Elementary Statistics
4		PS211 College Physics* or PS251 University Physics I*
4		PS212 College Physics II* or PS252 University Physics II*
41	Total	*With corresponding lab.

**EMPHASIS: ENVIRONMENTAL BIOLOGY**

Units	Term	
4		LS341 Ecology*
4		LS318 Conservation Biology & Sustainability*
4		GS452 Environmental Geoscience*

11 units of the following:

4		CH352 Organic Chemistry II*
3		CS348S Data Science for Scientists and Engineers
4		GS150 Essentials of Geology*
4		GS252 Historical Geology*
4		GS321 Mineralogy*
4		LS302 Comparative Anatomy*
4		LS312 Animal Physiology*
4		LS346 Marine Biology*
4		LS348 Biological Field Studies**
4		LS355 Parasitology*
4		LS362 Medical Microbiology*
4		LS375 Vertebrate Paleontology*
1-4		LS428 Research in Biology

64 Total (including Core courses).

\*With corresponding lab.

\*\*Can be repeated for credit.

**EMPHASIS: PALEONTOLOGY/NATURAL HISTORY**

Units	Term	
4		GS150 Essentials of Geology*, **
4		LS375 Vertebrate Paleontology*
4		LS341 Ecology*

11 units of the following:

4		CH352 Organic Chemistry II*
3		CS348S Data Science for Scientists and Engineers
4		GS252 Historical Geology*
4		GS321 Mineralogy*
4		GS322 Petrology*
4		GS472 Sedimentology and Stratigraphy*
4		LS302 Comparative Anatomy*
3		LS307 Biology of Dinosaurs
3		LS346 Marine Biology
1-4		LS428 Research in Biology

64 Total (including Core courses).

\*With corresponding lab.

\*\*Fulfills G.E. requirement

**EMPHASIS: LIFE SCIENCES EDUCATION**

Units	Term	
14		Biology, Chemistry, & Geology electives
3		ED202 Curriculum Instruction & Learning Theory or ED301 Cultural & Linguistic Diversity in Teaching
3		ED400 Foundations of Education* or ED101, ED202, and ED301
3		P321 History and Philosophies of Education*, **

64 Total (including Core courses).

\*Teaching Credential pre-req., requires B- or better.

\*\*Fulfills G.E. requirement for P311.

**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 Lab
4		LS252 Cell Biology*
4		LS342 Genetics and Genomics*
3		LS372 Origins

Units Term

1		LS420 Senior Seminar in Biology
1		LS422 Senior Capstone
3		MA260 Elementary Statistics
4		PS211 College Physics* or PS251 University Physics I*
4		PS212 College Physics II* or PS252 University Physics II*
41	Total	*With corresponding lab.

**EMPHASIS: PRE-ALLIED HEALTH**

**EMPHASIS: PRE-DENTISTRY**

**EMPHASIS: PRE-MEDICINE**

Units Term

4		LS341 Ecology*
4		CH352 Organic Chemistry II*
4		CH461 Biochemistry*

11 units of the following:

3		CS348S Data Science for Scientists and Engineers
1		KIN321D Special Topics: Pathophysiology
4		LS302 Comparative Anatomy*
4		LS321 Human Anatomy*
4		LS322 Human Physiology*
4		LS331 Developmental Biology*
4		LS351 Molecular Genetics*
3		LS352 Medical Physiology
4		LS355 Parasitology*
4		LS361 Immunology*
4		LS362 Medical Microbiology*
4		LS381 Neurobiology*
1-4		LS428 Research in Biology

64 Total (including Core courses).

\*With corresponding lab.

**EMPHASIS: PRE-NURSING**

Units Term

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

11 units of the following:

3		CH352 Organic Chemistry II*
4		CH461 Biochemistry*
4		KIN321C Special Topics: Medical Ethics
1		KIN321D Special Topics: Pathophysiology
3		KIN353 Essentials of Nutrition
3		LS231/BE302 Human Growth & Development
4		LS331 Developmental Biology*
4		LS361 Immunology*
4		LS381 Neurobiology*
1-4		LS428 Research in Biology

64 Total (including Core courses).

\*With corresponding lab.