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EMPHASIS:

# SCHOOL of SCIENCE, MATHEMATICS, **TECHNOLOGY & HEALTH**

**Department of Computer & Information Sciences** B.S. in Computer & Information Sciences CORRESPONDS WITH THE 2020-2021 ACADEMIC CATALOG

CIS majors must complete: 58 GE units, 35 CIS Core units, 18 CIS emphasis units, and 11+ additional units, for a minimum of 122 total units.

#### CIS CORE COURSES

Units	Term		
3		CIS111 Introduction to Computer Programming	
3		CIS112 Data Structures & Algorithms	
3		CIS202 Computer Hardware	
3		CIS301 Computer Organization & Architecture	
3		CIS302 Database Management Systems	
3		CIS311 Operating Systems	
3		CIS312 Networking Principles & Architecture	
3		CIS321 Programming Languages & Systems	
3		CIS322 Software Engineering	
2		CIS490 Internship	
3		CIS492 Senior Seminar	
3		MA253 Discrete Mathematics	
35		Total units required for core	

# GENERAL EDUCATION

Units	Term		
3		C100 Spoken Communication	
3		E110 English Composition	
3		Literature Survey (choose one - see below *)	
3		Literature Elective (choose one - see below * or **)	
3		ECN200 Essentials of Economics & Society	
3		H211 Essentials of World History I or pass World History	
3		H211 Essentials of World History I H212 Essentials of World History II Competency Exam & 3 units of Upper Division History	
3		H230 Essentials of U.S. History	
3		LS150 Essentials of Biology or	
3		GS150 Essentials of Geology	
1		LS150L Essentials of Biology Lab or	
		GS150L Essentials of Geology Lab	
3	waived for CIS majors	MA240 Critical Thinking & Quantitative Analysis	
2		MU190 Essentials of Music & Art or	
3		ART338 Art History of the Western World	
3		P311 Essentials of Philosophy	
3		POL220 U.S. Government waived for non-U.Scitizen non-U.Sresidents	
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# BIBLICAL STUDIES

**TMU Graduation Requirements** 

Units	Term	
3		B121 Essentials of Christian Thought
3		B101 Old Testament Survey I
3		B102 Old Testament Survey I
3		B201 New Testament Survey
3		B202 New Testament Survey II
3		BTH 321 Christian Theology I
3		BTH 322 Christian Theology II
21		Total units required

\* E211 English Literature I E212 English Literature II E221 World Literature I E222 World Literature II E231 American Literature I E232 American Literature II

# \*\* E120 Introduction to Literature E313 Age of Romanticism

- E314 Victoria Age
- E334 The Short Story
- E335 The English Story
- E374 Studies in Jane Austen
- E404 Studies in John Calvin
- E405 Shakespeare
- E406 Milton
- E415 Contemporary Literature
- E416 Modern British Writers
- E425 20th Century American Literature
- E453 Psychoanalytic Criticism

- · Complete a minimum of 32 semester units at TMU, not including Directed Studies coursework.
- Complete at least I 2 of the final 24 semester units at TMU

· Complete a minimum of 122 semester units of credit

· Satisfy all General Education requirements

· Complete a minimum of 40 semester units in upper division courses

· Complete the required curriculum for the chosen major field(s) of study Maintain a minimum GPA of 2.00 (cumulative) in all TMU courses

Computer & Information Sciences Major Requirements: Core + One Emphasis (53 Units)

#### EMPHASIS COURSES

### **COMPUTER SCIENCE EMPHASIS COURSES**

Units	Term
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3		CIS331 Web Application Development	
3		CIS332 Linux	
3		CIS351 Computer Security I	
3		MA121 Calculus I	
two of the following:			
		MA122 Calculus II	

	IVIA 122 Calculus II	
	MA231 Linear Algebra	
6	MA262 Elementary Statistics	
	CIS Upper Division Electives	
	General Upper Division Electives*	* if approved by CIS chair for incorporation into Senior Seminar
18	Total units required for emphasis	Capstone Project

#### INFORMATION SYSTEMS EMPHASIS COURSES

Units	Term				
3		CIS341 Cloud Administration			
3		CIS342 Project Management & Enterprise Software			
3		ACC210 Accounting Fundamentals I			
3		MGT310 Management Theory			
two	two of the following:				
		MA262 Elementary Statistics			
6		CIS Upper Division Electives			
		General Upper Division Electives*	* if approved by CIS chair for incorporation into Senior Seminar		
18	*	Total units required for emphasis	Capstone Project		

#### CIS Department Requirements (from TMU Catalog):

All CIS majors are required to earn a grade of C or better in all courses in the CIS major. A student earning a grade below C must repeat the course until a grade of C or above is earned.

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.