

Mathematics, B.S.

2020-2021

MAJOR REQUIREMENTS (74 UNITS) Grades of "C" or better required. Courses should be completed in order listed.

Core Curriculum - (50 Units)	FALL	WINTER	SPRING
CPTG 121 Introduction to Computer Science (4) Prerequisite: MATH 121			
MATH 131 Calculus I (4) Prerequisite: MATH 122 or appropriate Math Placement Exam score			
MATH 132 Calculus II (4) Prerequisite: MATH 131			
MATH 133 Calculus III (4) Prerequisite: MATH 132			
MATH 231 Introduction to Linear Algebra & Discrete Mathematics (4) Prerequisite: MATH 132			
MATH 232 Differential Equations (4) Prequisite: MATH 133 & 231			
MATH 233 Vector Calculus (4) Prerequisite: MATH 133			
MATH 324 Linear Algebra (4) Prerequisite: MATH 231			
MATH 415 Sets & Number Systems (4) Prerequisite: MATH 133 & 231			
MATH 421 Abstract Algebra I (4) Prerequisite: 324			
MATH 431 Analysis I (4) Prerequisite: MATH 415			
MATH 432 Analysis II (4) Prerequisite:MATH 431			
MATH 485 Seminar or CPTG 485 Seminar (0.5-2 units each; 2 units total required) Prerequisite: MATH 131			
Additional upper division Computer Science or Mathematics courses (12 units)			
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Required Cognates (12 units)			
PHYS 231 General Physics I (4) and PHYS 231L Laboratory (1) *Physical Science			
AND 8 units from the following:			
PHYS 232 General Physics II (4) and PHYS 232L Laboratory (1) Prerequisite: PHYS 231 and 231L. *Physical Science			
PHYS 233 General Physics III (4) and PHYS 233L Laboratory (1) Prerequisite: PHYS 232 and 232L. *Physical Science			
CHEM 351 Physical Chemistry: Thermodynamics (3) and CHEM 351L Laboratory (1) Prerequisite: CHEM 224, MATH 132, PHYS 233			
CHEM 352 Physical Chemistry: Dynamics (3) and CHEM 352L Laboratory (1) Prerequisite: CHEM 351 & 351L			
CHEM 353 Physical Chemistry: Quantum Mechanics (3) and CHEM 353L Laboratory (1) Prerequisite: CHEM 352 & 352L			
Students pursuing teaching credentials are recommended to complete the following:			
MATH 345 College Geometry (4) Prerequisite: MATH 231. Concurrent enrollment accepted.			
MATH 415 Sets and Number Systems (4) Prerequisite: MATH 133 & MATH 231			
MATH 422 Abstract Algebra II (4) Prerequisite: MATH 421			
MATH 451 Introduction to Mathematical Statistics I (4) Prerequisite: MATH 133 & MATH 231			

SEE REVERSE FOR UNIVERSITY STUDIES REQUIREMENTS

*A maxiumum of 4 units from the Major, and 8 units of Cognates required by the Major, may apply to University Studies General Studies requirements (2020-2021 Undergraduate Academic Bulletin)

NOTE: Should a student's general education and major degree program requirements not meet the minimum 190 units required for graduation, the student must complete elective units to make up the deficiency.

UNIVERSITY STUDI	ES (73-86 UNITS)				
Foundational Studies (21-34 units) Grades of "C" or better required					SPRING
I. First Year Seminar					
II. Rhetorical Skills	A. ENGL 111 (3), ENGL 112 (3), ENGL 113 (3) OR				
ii. Mictorical Skiiis	ENGL 124 Freshman Seminar (4)				
	B. Upper Division Rhetoric in MATH 415, 431, and 432 (4)				
III. Mathematics	One college-level Mathematics course in MATH will be satisfied by major				
IV. World Languages	Level 3 proficiency (e.g. 153) in one non-English language (4-12)				
V. Health and Fitness					
Ganaral Studios (52	units, 16 upper division) Grades of "D" or better required, unless courses are required by major				
THEME I. Social Science					
	r and Citizenship (4 units from SSCI 204, 205, Prerequisite: ENGL 113 or 124				
Social Science Breadth					
	nanities (HUMN) 12 units				
	nits from HUMN 104, 105, 106, 107, 108 or				
109) Prerequisite: ENGL 11					
Arts and Humanities B	Breadth Course (4 units)				
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THEME III. Religious Bel	liefs and Practices (RLGN) 16 units				
	in Global Perspective or RLGN 305 Religion in s) Prerequisite: ENGL 113 or 124, Junior Status				
A. Spiritual Experience	e and Expressions (0-4 units)				
B. Beliefs and Heritage	e (4 units)				
C. Scripture (4 units)					
D. Religion and Society	y (4 units)				
THEME IV. Natural Scien	nces (NSCI) 12 units				
Scientific Foundations	(4 units from NSCI 404, 405, 406, 407, 408 or 409 Prerequisite: ENGL 113 or 124, College-Level Math, Junior or Sen	ior Status			
Life Science (4 units) E	ither life science or physical science must include a lab				
Physical Science (4 uni	its) Either life science or physical science must include a lab				
THEME V. Senior Semin	ar (UNST) 4 units				
UNST 404T Religion,	Values, and Social Responsibility (4)				
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 Service Learning (3 (Courses)				