

MATHEMATICAL SCIENCE, BACHELOR OF SCIENCE

2018-2019 Degree Plans

University Core Requirements (42 Hours)	UHCL Course Title	TCCNS	CODE
Communications (6 hours):	WRIT 1301—Composition I (<i>Grade must be "C-" or better</i>)	ENGL 1301	010
	WRIT 1302—Composition II (<i>Grade must be "C-" or better</i>)	ENGL 1302	010
Mathematics (3 hours):	MATH 1314—College Algebra	MATH 1314	020
Life and Physical Sciences (6 hours):	Choose TWO courses from the core approved list		030
Language, Philosophy, and Culture (3 hours):	Choose ONE course from the core approved list		040
Creative Arts (3 hours):	Choose ONE course from the core approved list		050
U.S. History (6 hours):	HIST 1301—U.S. History I	HIST 1301	060
	HIST 1302—U.S. History II	HIST 1302	060
Government/Political Science (6 hours):	POLS 2305—Federal Government	GOVT 2305	070
	POLS 2306—Texas Government	GOVT 2306	070
Social/Behavioral Science (3 hours):	Choose ONE course from the core approved list		080
Component Area Option (6 hours):	COMM 1315—Public Speaking	SPCH 1315	090
	PSYC 1100—Learning Frameworks	PSYC 1100	090
	TWO 1-hr Labs for Life and Physical Science		

Major Requirements (42 hours)	UHCL Course Title	TCCNS	CODE
<i>Required minimum grade is "C-" in the following classes:</i>			
	WRIT 3315—Technical Writing		
	CSCI 1320 or 3311 C Programming or Programming with Visual Basic		
	MATH 2412—Pre-Calculus Mathematics	MATH 2412	020
	MATH 2413—Calculus I	MATH 2413	020
	MATH 2414—Calculus II	MATH 2414	
	MATH 2315—Calculus III	MATH 2315	
	MATH 2318—Linear Algebra	MATH 2318	
	MATH 2320—Differential Equations	MATH 2320	
	MATH 3331—Advanced Calculus		
	MATH 4316—Mathematic Software Applications		
	MATH 4322 or MATH\STAT 4345 Introduction to Abstract Algebra or Introduction to Statistics		
	MATH\STAT 4344—Introduction to Probability		
	MATH 4315—Numerical Analysis & Applications		

Major Electives (9 hours)	UHCL Course Title	TCCNS	CODE
<i>Required minimum grade is "C-" in the following classes:</i>			
<i>Three upper level MATH/STAT classes which must be selected from the following list:</i>			
	MATH 3312—Number Theory		
	MATH 4313—Introduction to Topology		
	MATH 4321—Predicate Logic		
	MATH 4322—Introduction to Abstract Algebra		

Major Electives (9 hours, continued)

MATH 4363—Functions of a Complex Variable
 MATH 4325—Theory of Models and Applications
 MATH 4341—Introduction to Analysis
 MATHSTAT 4345—Introduction to Statistics
 MATHSTAT 4346—Probability for Actuarial Exam P1
 MATHSTAT 4348—Introduction to Financial Math for Exam FM
 MATHSTAT 4350—Financial Economics for Actuarial Exam MFE

Specialization Options (27 hours)**UHCL Course Title****Option 1: Mathematical Science BS without specialization**

27 hours of Upper level UHCL classes selected from any rubric. It is the responsibility of the student to investigate and comply with prerequisites for all electives. STAT 3308 and STAT 3334 cannot be used for credit towards a Mathematical Science degree.

Option 2: Mathematical Science with Actuarial Science Specialization

**If MATH/STAT 4345 is taken for major elective credit, an additional 3 hours of general electives must be taken.*

ECON 2301—Principles of Macroeconomics
 ECON 2302—Principles of Microeconomics
 ACCT 2301—Principles of Accounting I
 ACCT 2302—Principles of Accounting II
 FINC 3331—Business Finance
 MATH/STAT 4345—Introduction to Statistics*
 MATHSTAT 4346—Probability for Actuarial Exam P1
 MATHSTAT 4348—Introduction to Financial Math for Exam FM
 ELEC X3XX—General Elective

General Degree Requirements

- Students must complete at least 120 semester credit hours. A minimum of 45 hours of the 120 semester hours must be advanced (3000-4000 level) course work according to the requirements of the respective major.
- Students must complete the University Core Curriculum requirements (refer to Core Curriculum Requirements section of this catalog).
- Students must fulfill the statutory requirements of the Texas State Education Code, including the following:
 - Six hours of U.S. History (three hours may be Texas History).
 - Six hours of Constitutions of the United States and Texas.
- Students must demonstrate writing proficiency by completing nine hours of lower-level (1000-2000 level) and upper-level (3000-4000 level) English composition course credit with a minimum grade of "C-" or better. Some majors may require higher grades in English composition.
- Students must complete at least 25% of the credit hours required for the degree (i.e., 30 semester credit hours for a 120 credit hour program) through instruction offered by UHCL to fulfill the Southern Association of Colleges and Schools (SACS) residency requirements.
- Students must complete the final 30 semester hours of 3000 and 4000 level course work in residence at UHCL.
- Students must complete a minimum of 12 semester credit hours of upper-level (3000-4000 level) coursework in the major in residence at UHCL.
- Students must have a cumulative GPA of 2.000 on course work completed at UHCL with grades of "C" or better on at least 30 hours of resident upper-level work. Grades of "C-" or below cannot be applied toward the 30 hours of resident upper-level work.