

Mathematical Sciences, BS or BA - Concentration I

This concentration leads to a B.S. or B.A. degree with a major in mathematics, and is appropriate for students planning careers in industry or graduate study in mathematics.

The minimum requirement for a B.S. degree is 128 credit hours. See: Academic Policies and Procedures (<http://catalog.uah.edu/undergrad/policies-procedures/application-graduation/>).

Code	Title	Semester Hours
Charger Foundations		41
Major Core Courses ^{1,2}		
MA 171	CALCULUS A	4
MA 172	CALCULUS B	4
MA 201	CALCULUS C	4
MA 244	INTRO TO LINEAR ALGEBRA	3
MA 330	FOUNDATIONS OF MATH	3
MA 385	INTRO TO PROBABILITY & STATIST	3
Required Ancillary Courses for All Concentrations ³		
CM 113	Intro to Rhetorical Communication	3
EH 301	TECHNICAL WRITING	3
CS 102	INTRO TO C PROGRAMMING	3
CS 121	COMPUTER SCIENCE I	3
PH 111 & PH 114	GEN PHYSICS W/CALCULUS I and GENERAL PHYSICS LAB I	4
PH 112 & PH 115	GEN PHYSICS W/CALC II and GENERAL PHYSICS LAB II	4
Required Courses ⁴		
MA 238	APPL DIFFERENTIAL EQUATIONS	3
MA 442	ALGEBRAIC STRUCTURES W/APPLIC	3
MA 452	INTRO TO REAL ANALYSIS	3
MA 465	INTRO TO MATH MODELING	3
Three mathematics courses at the 300 level or above		9
Total Semester Hours		103

¹ Courses required for all concentrations in the major.

² Only MA courses numbered 171 or above may be included in a mathematics major, and an overall average of C is required for all UAH MA or ST courses that are included in a mathematics major. Information on other MA course requirements is given in Concentrations I, II, and III below. Students who think that substitutions in those concentrations can produce a program better suited to their needs should consult their faculty advisor about the feasibility of such substitutions. All MA electives must be approved by the student's faculty advisor prior to registering for the courses. All majors in mathematics must satisfy the appropriate (B.S. or B.A.) Charger Foundation and degree requirements.

³ Students majoring in other academic areas who wish to obtain a more solid background in mathematics than is provided by a minor may pursue a second major in mathematics rather than a minor in mathematics. Concentration III is specifically designed for such students.

⁴ The MA electives must be pre-approved by the student's mathematics advisor. The Charger Foundations are outlined here (<http://catalog.uah.edu/undergrad/charger-foundations/#requirementstext>).