

COLLEGE OF SCIENCE

Mathematical Sciences, BS 2022-2023 Catalog | catalog.uah.edu

ompleted	Course Number	Credits	Course Name	Prerequisites, Corequisites and/or Prerequisites with Concurrency	Semester Usual Offered
			Charger Foundat		
			Area I: Freshman Composition 6 credits -		
	EH 101	3	College Writing I	<u>Placement</u>	FA/SP/SU
	EH 102	3	College Writing II	EH 101 or EH 101S	FA/SP/SU
	EH 103	3	Accelerated College Writing	<u>Placement</u>	SP
	EH 105	3	Honors English Seminar	Honors	FA
			Area II: Humanities and Fine	Arts 12 credits	
		3	Fine Art	See attached for choices	
		3	Literature	Completion of Area I; See attached for choices	
		3	Non-Literature Humanity	See attached for choices	
		3	Humanities/Fine Arts/Literature	See attached for choices	
			Area III: Mathematics and Scie	nces 11-12 credits	
			Mathematics 4 cr	edits	
	MA 171 or MA 171S	4	Calculus A	Placement or MA 113 or MA 115	FA/SP/SU
			Natural Sciences (Lab)	8 credits	
	PH 111/114	3/1	General Physics w/ Calculus I + Lab	MA 171	FA
	PH 112/115	3/1	General Physics w/ Calculus II + Lab	MA 172 and PH 111/114	SP
			Area IV: History and Social & Behavi	oral Sciences 12 credits	
		3	History	See attached for choices	
		3	Social & Behavioral Science	See attached for choices	
		3	Social & Behavioral Science	See attached for choices	
		3	History/Social & Behavioral Science	See attached for choices	
		0	Area V: Pre-Profes		
			For Mathematical Sciences N		
	FYE 101S	1	Charger Success - Science	REQUIRED	FA
	CM 113	3	Public Speaking		FA/SP/SU
		4	Additional Lab Science	See attached for choices	
		3	Intro to Computer Programming	See attached for choices	
	CS 121	3	Computer Science I	CS 102/103/104 and MA 113+	
	03 12 1	5	Major Requirem		
			Major Requirem Mathematical Sciences Co		
	MA 172	4	Calculus B	MA 171	FA/SP/SU
	MA 172 MA 201	4	Calculus C	MA 171	FA/SP/SU
		3			
_	MA 238		Appl Differential Equations	MA 172, 201	FA/SP/SU
	MA 244	3	Intro to Linear Algebra	MA 120 or 172	FA/SP/SU
	MA 330	3	Foundations of Math	MA 172, 244	FA/SP/SU
	MA 385	3	Intro to Probability & Statistics	MA 201	FA/SP/SU
	MA 442	3	Algebraic Structures w/ Application	MA 244 and (MA 330 or 385)	FA/SP/SU
	MA 452	3	Intro to Real Analysis	MA 330	FA/SP
	MA 465	3	Intro to Math Modeling	MA 201, 238, 244	SP
			Mathematical Sciences Elective Re		
_		Cl	hoose three 300-level or higher MA course to	reach a minimum of 9 credit hours	
				<u> </u>	
			General Electiv		
	Ele	ective cour	ses can be taken from any department and do		
			Total = 120+ credits to	graduate	



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		Charger Foundations Choi	ices				
I. Freshman Composition	Choose 1	College Writing I & II (EH 101 + 102) Intensive Writing & Studio & Freshman Comp II (EH 101S + 101L & EH 102) Honors English Seminar (EH 105; equivalent to EH 101 & EH 102) Accelerated College Writing (EH 103: equivalent to EH 101 & EH 102)					
II. Fine Arts	Choose 1	Ancient to Medieval Art (ARH 100) Renaissance to Modern Art (ARH 101) World Art (ARH 103) Introduction to Drawing (ARS 160) Intro to Film Studies (FMA 123) Intro to Music Literature (MU 100) Theatre Appreciation (TH 122)					
II. Humanities (Literature)	Choose 1	Readings Literature/Culture I (EH 207) Readings Literature/Culture II (EH 208) Honors Literature/Culture I (EH 209) Honors Literature/Culture II (EH 210) Literature Without Borders (EH 241)	Mythology (EH 242) Protest Literature (EH 243) Heroes &/or Monsters (EH 244) Love &/or Romance (EH 245) Speculative Realities (EH 246)				
II. Humanities (Non-Literature)	Choose 1	Ancient to Medieval Art (ARH 100) Renaissance to Modern Art (ARH 101) World Art (ARH 103) Introduction to Drawing (ARS 160) Ancient & Medieval Worlds (AMS 229) Public Speaking (CM 113) Intro to Film Studies (FMA 123) Intro to Film Studies (FMA 123) Intro to Music Literature (MU 100) Intro to Philosophy (PHL 101)	Intro to Philosophy (PHL 101) Intro to Ethics (PHL 102) Intro to Logic (PHL 103) Science, Tech & Human Values (PHL 150) Theatre Appreciation (TH 122) Intro to Women's Studies (WGS 200) Foreign Language (WLC 101) International Cinema (WLC 204)				
III. Mathematics	\rightarrow	Calculus A (MA 171 or MA 171S)					
III. Natural Sciences (Lab) Sequence	\rightarrow	General Physics w/ Calculus I (PH 111/114) General Physics w/ Calculus II (PH 112/115)					
IV. History	Choose 1	World History I (HY 103) World History II (HY 104)	United States to 1877 (HY 221) United States Since 1877 (HY 222)				
IV. Social & Behavioral Sciences	Choose 2	World Geography (AES 105) Human Geography (AES 110) Global systems & Cultures (GS 200) Macroeconomics (ECN 142) Microeconomics (ECN 143) American Gov't (PSC 101) Politics & Foreign Govt (PSC 102)	International Relations (PSC 260) General Psychology (PY 101) Life Span Development (PY 201) Intro to Sociology (SOC 100) Analysis of Social Problems (SOC 102) Intro to Criminology (SOC 103)				
e. I .		Students must take one literature and or					
Students Area II Sequence		e <u>either</u> a second literature <u>or</u> history/social & be rature <u>AND</u> History or Social & Behavioral Science	havioral science course to complete a sequence.				
OR							
Area IV Sequence							
Area V. Choices							
Additional Lab Science	Choose 1	Environmental Earth Science (AES 103/103L) Weather & Climate Change (AES 104/104L) Exploring the Cosmos (AST 106/106L) Principles of Biology (BYS 119/121) Organismal Biology (BYS 120/122) Intro to Chemistry (CH 101/105) General Chemistry I (CH 121/125) General Physics w/ Calculus III (PH 113/116)					
Computer Programming	Choose 1	Intro to C Programming (CS 102) Intro to Programming Using JAVA (CS 103) Intro to CS Using Python (CS 104)					