# **Cleveland State University College of Arts and Sciences**

### **Bachelor of Arts in Mathematics**

			Firs	Year	
Fall Semester	Credits	Major	Gen Ed	Spring Semester Credits Major Ge	en Ed
ASC 101 Intro to University Life	1		Intro	ENG 102 College Writing II 3 V	W/C
ENG 101 College Writing I	3		W/C	MTH 182 Calculus II 4 X M	И/QL
MTH 181 Calculus I	4	Х	M/QL	Arts & Humanities Elective** 3 A	A&H
Natural Science Elective	3		NS	Natural Science Elective 3	NS
Natural Science Elective Lab	1		NS	General Elective* 3	
Social Science Elective**	3		SS		
Semester Total	15			Semester Total <b>16</b>	

			Seco	nd	Year Tear			
Fall Semester	Credits	Major	Gen Ed		Spring Semester	Credits	Major	Gen Ed
MTH 281 Multivariable Calculus	4	Х			MTH 220 Intro to Discrete Mathematics	3	Х	
MTH 288 Linear Algebra	3	Х			MTH 286 Intro to Differential Equations	3	Х	
Social Science Elective**	3		SS		Social Diversity Elective (US)	3		DIV-US
General Elective*	3				General Elective*	3		
General Elective*	3				General Elective*	3		
Semester Total	16				Semester Total	15		

			Thir	d Y	/ear			
Fall Semester	Credits	Major	Gen Ed		Spring Semester	Credits	Major	Gen Ed
MTH 300-Level Course^	3	Χ			MTH 396 Junior Seminar	2	Х	
MTH 300-Level Course^	3	Х			MTH 358 Abstract Algebra	3	Х	WAC
Arts & Humanities Elective**	3		A&H		MTH 300-Level Course <sup>^</sup>	3	Х	
General Elective* 300/400 Level	3				Social Diversty Elective (AA)	3		DIV-AA
General Elective*	3				General Elective*	3		
Semester Total	15				Semester Total	14		

			Four	th	Year			
Fall Semester	Credits	Major	Gen Ed		Spring Semester	Credits	Major	Gen Ed
MTH 400-Level Course^	3	Х			MTH 400-Level Course^	3	Х	
MTH 400-Level Course^	3	Х			MTH 496 Senior Project	3	Х	CAP/WAC
General Elective* (WAC)	3		WAC		General Elective* 300/400 Level	3		
General Elective* 300/400 Level	3				General Elective* 300/400 Level	3		
General Elective*	3				General Elective*	3		
Apply for Spring graduation by the middle of this	term							
Semester Total	15				Semester Total	15		
Credit Total:	121	(minim	um 120 re	qu	ired for degree)	_	_	

The plan above is a suggested guide to ensure that all General Education, College, University, and Major requirements are met within 4 years of study. Students may deviate from the suggested placement of Gen Ed courses, although the M/QL and W/C requirements should be completed during the first year of study. This plan assumes college-level readiness in both mathematics and English and that Foreign Language Deficiency requirements have been met.

#### Gen Ed Key:

INTRO = Introduction to University Life Requirement (one course)

W/C = Writing/Composition Requirement (2 courses; C or better required)

M/QL = Mathematics/Quantitative Literacy Requirement (2 courses)

NS = Natural Science (2 courses, one of which must have a lab)

SS = Social Sciences Requirement (2 courses from different departments\*\*)

A&H = Arts & Humanities Requirement (2 courses from different departments\*\*)

DIV = Social Diversity Requirement (one US Diversity & one African American Exp.)

WAC/SPAC = Writing/Speaking Across the Curriculum (3 courses, one in major)

CAP = Capstone Requirement

<sup>\*</sup> General Electives ensure that a student accumulates the minimum 120 required credit hours for graduation. Of these 120 credit hours, a minimum of 36 credit hours must be upper division (300 or 400-level courses).

<sup>\*\*</sup> Of the SS and A&H courses, one must be focused on Africa, Latin America, or the Middle East

<sup>^</sup>STA 323 and 424/425 can be used to satisfy the MTH 300 or 400 level elective requirement. MTH 300/400 level offerings are on annual rotations and consultation with an advisor is highly recommended to plan them accordingly

## Cleveland State University College of Arts and Sciences

### **Bachelor of Arts in Mathematics**

CSUTeach - license in Education

				Firs	t Year				
Fall Semester	Credits	Major	License	Gen Ed	Spring Semester	Credits	Major	License	Gen Ed
ASC 101: Intro to University Life	1			Intro	ENG 102 College Writing II	3			W/C
ENG 101: College Writing I	3			W/C	MTH 182 Calculus II	4	Х	х	M/QL
MTH 181 Calculus I	4	Х	Х	M/QL	Natural Science Lecture Elective	3			NS
PSY 221: Adolescent Psychology	3		Х	SS	Social Science Elective**	3			SS
Natural Science Elective	3	Х		NS	General Elective*	3			
Natural Science Elective Lab	1	X		NS					
Semester Total	15				Semester Total	16			

				Seco	nd Year				
Fall Semester	Credits	Major	License	Gen Ed	Spring Semester	Credits	Major	License	Gen Ed
EUT 201: Step 1: Inquiry Approaches to Teaching	1		Х		MTH 286: Differential Equations	3	Х		
MTH 281: Multivariable Calculus	4	Х	Х		MTH 220: Discrete Mathematics	3	Х	х	
MTH 288: Linear Algebra	3	Х	Х		EDC 200 Diversity in Educational Settings	3		х	DIV-US
Arts & Humanities Elective**	3			A&H	EDB 242 Introduction to Education	3		х	
Social Diversity Elective (AA)	3			DIV-AA	General Elective*	3			
General Elective	3								
Semester Total	14				Semester Total	15			

	•	•	•	Thir	d Year		•		
Fall Semester	Credits	Major	License	Gen Ed	Spring Semester	Credits	Major	License	Gen Ed
MTH 333: Geometry	3	Х	Х		MTH 358 Abstract Algebra	3	Х	Х	WAC
MTH 301: Introduction to Number Theory	3	Х	Х		MTH 201 Functions & Modeling	3		Х	
STA 323: Statistical Methods	3	Х	Х		MTH 400 Level Elective	3	X		
EDB 302 Psychological Foundations of Education	3		Х	WAC	ESE 400 Introduction to Special Education	3		х	WAC
EDL 305 Content Area Literacy	3		Х		EUT 305 Classroom Interactions	3		х	
Semester Total	15				Semester Total	15			

				Four	th Year				
Fall Semester	Credits	Major	License	Gen Ed	Spring Semester	Credits	Major	License	Gen Ed
MTH 396: Junior Seminar	2	Х	х		EST 499: CSUteach STEM Apprentice Teaching II	6		х	
MTH 400 Level Elective	3	Х			EUT 210: Perspectives on Science & Math	3		Х	A&H/WAC
STA 424 Probability Theory & Application	3	X	Х		MTH 496: Senior Project	3	Х	Х	WAC/CAP
EUT 415: Project Based Instruction in Mathematics	3		х						
EST 399: CSUteach STEM Apprentice Teaching I	3		Х						
SCI 311 Research Methods	3		х	WAC					
Apply for Spring graduation by the middle of this term									
Semester Total	17				Semester Total	12			•
, , , , , , , , , , , , , , , , , , , ,	17			Degree	Semester Total Total: 136	12			

The plan above is a suggested guide to ensure that all General Education, College, University, and Major requirements are met within 4 years of study. Students may deviate from the suggested placement of Gen Ed courses, although the M/QL and W/C requirements should be completed during the first year of study. This plan assumes college-level readiness in both mathematics and English and that Foreign Language Deficiency requirements have been met.

Gen Ed Kev:	SS = Social Sciences Requirement (2 courses from different departments**)
INTRO = Introduction to University Life Requirement (one course)	A&H = Arts & Humanities Requirement (2 courses from different departments**)
W/C = Writing/Composition Requirement (2 courses; C or better required)	DIV = Social Diversity Requirement (one US Diversity & one African American Exp.)
M/QL = Mathematics/Quantitative Literacy Requirement (2 courses)	WAC/SPAC = Writing/Speaking Across the Curriculum (3 courses, one in major)
NS = Natural Science (2 courses, one of which must have a lab)	CAP = Capstone Requirement

<sup>\*</sup> General Electives ensure that a student accumulates the minimum 120 required credit hours for graduation. Of these 120 credit hours, a minimum of 36 credit hours must be upper division (300 or 400-level courses).

<sup>\*\*</sup> Of the SS and A&H courses, one must be focused on Africa, Latin America, or the Middle East

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			Firs	t Y	'ear			
Fall Semester	Credits	Major	Gen Ed		Spring Semester	Credits	Major	Gen Ed
ASC 101 Introduction to University Life	1		INTRO		ENG 102 English II	3		W/C
ENG 101 English I	3		W/C		MTH 182 Calculus II	4	Х	M/QL
MTH 181 Calculus I	4	Х	M/QL		PHY 241 University Physics I (or PHY 243)	5	Х	NS
Social Science Elective**	3		SS		Arts & Humanities Elective**	3		A&H
Science Elective^	3	Х			General Elective*	2		
Semester Total	14				Semester Total	17		

			Seco	nd	Year			
Fall Semester	Credits	Major	Gen Ed		Spring Semester	Credits	Major	Gen Ed
MTH 281 Multivariable Calculus	4	Х			MTH 220 Intro to Discrete Mathematics	3	Х	
MTH 288 Linear Algebra	3	Х			MTH 286 Intro to Differential Equations	3	Х	
PHY 242 University Physics II (or PHY 244)	5	Х	NS	į	Social Diversity Elective (US)	3		DIV-US
Social Science Elective**	3		SS		Science Elective^	3	Х	
					General Elective*	3		
Semester Total	15				Semester Total	15		

			Thir	d Y	/ear			
Fall Semester	Credits	Major	Gen Ed		Spring Semester	Credits	Major	Gen Ed
MTH 300-Level Course^^	3	Х			MTH 396 Junior Seminar	2	Х	
MTH 300-Level Course^^	3	Х			MTH 358 Abstract Algebra	3	Х	WAC
Science Elective^	3	Х			MTH 300-Level Course^^	3	Х	
Arts & Humanities Elective**	3		A&H		Social Diversty Elective (AA)	3		DIV-AA
General Elective* 300/400 Level	3				Science Elective^	3		
Semester Total	15				Semester Total	14		

Fourth Year							
Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed
MTH 400-Level Course^^	3	Х		MTH 400-Level Course^^	3	Х	
MTH 400-Level Course^^	3	Х		MTH 496 Senior Project	3	Х	CAP/WAC
General Elective* (WAC)	3		WAC	General Elective* 300/400 Level	3		
General Elective* 300/400 Level	3			General Elective* 300/400 Level	3		
General Elective*	3			General Elective*	3		
Apply for Spring graduation by the middle of this	term						
Semester Total	15			Semester Total	15		
Credit Total: 120 (minimum 120 required for degree)							

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SS = Social Sciences Requirement (2 courses from different departments\*\*)

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<sup>\*\*</sup> Of the SS and A&H courses, one must be focused on Africa, Latin America, or the Middle East

<sup>^</sup> Science Electives should be chosen from one or any combination of the following fields (courses numbered 200-level or higher): BIO, GEO, EVS, CHM, PHY, and CIS OR from STA 347,421,431,435,436,467. Please refer to the Undergraduate Catalog for more details.

<sup>^</sup>STA 323 and 424/425 can be used to satisfy the MTH 300 or 400 level elective requirement. MTH 300/400 level offerings are on annual rotations and consultation with an advisor is highly recommended to plan them accordingly

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### **Bachelor of Science in Mathematics**

CSUTeach - license in Education

First Year									
Fall Semester	Credits	Major	License	Gen Ed	Spring Semester	Credits	Major	License	Gen Ed
ASC 101: Intro to University Life	1			Intro	ENG 102 College Writing II	3			W/C
ENG 101: College Writing I	3			W/C	MTH 182 Calculus II	4	Х	х	M/QL
MTH 181 Calculus I	4	Х	Х	M/QL	PHY 241/243/H: University Physics I	5	Х		NS
PSY 221: Adolescent Psychology	3		Х	SS	EDC 200: Diversity in Educational Settings	3		х	DIV-US
Science Elective^	3	Х		NS	Social Science Elective**	3			SS
Semester Total	14				Semester Total	18			

Second Year									
Fall Semester	Credits	Major	License	Gen Ed	Spring Semester	Credits	Major	License	Gen Ed
EUT 201: Step 1: Inquiry Approaches to Teaching	1		Х		MTH 286: Differential Equations	3	Х		
MTH 281: Multivariable Calculus	4	Х	Х		MTH 220: Discrete Mathematics	3	Х	х	
MTH 288: Linear Algebra	3	Х	Х		EDB 242 Introduction to Education	3		х	
Arts & Humanities Elective**	3			A&H	Science Elective^	3	Х		
PHY 242/244/H: University Physics II	5	Х		NS	Social Diversity Elective (AA)	3			DIV-AA
Semester Total	16				Semester Total	15			

Third Year									
Fall Semester	Credits	Major	License	Gen Ed	Spring Semester	Credits	Major	License	Gen Ed
MTH 333: Geometry	3	Х	Х		MTH 358 Abstract Algebra	3	Х	Х	WAC
MTH 301: Introduction to Number Theory	3	Х	Х		MTH 201 Functions & Modeling	3		Х	
STA 323: Statistical Methods	3	Х	Х		MTH 400 Level Elective^^	3	X		
EDB 302 Psychological Foundations of Education	3		Х	WAC	ESE 400 Introduction to Special Education	3		х	WAC
EDL 305 Content Area Literacy	3		Х		EUT 305 Classroom Interactions in Humanities	3		х	
Semester Total	15				Semester Total	15			

Fourth Year									
Fall Semester	Credits	Major	License	Gen Ed	Spring Semester	Credits	Major	License	Gen Ed
MTH 396: Junior Seminar	2	Х	Х		EST 499: CSUteach STEM Apprentice Teaching II	6		Х	
MTH 400 Level Elective^^	3	Х			EUT 210: Perspectives on Science & Math	3		Х	A&H/WAC
STA 424 Probability Theory & Application	3	X	Х		MTH 496: Senior Project	3	Х	Х	WAC/CAP
EUT 415: Project Based Instruction in Mathematics	3		Х						
EST 399: CSUteach STEM Apprentice Teaching I	3		Х						
SCI 311 Research Methods	3		Х	WAC					
Apply for Spring graduation by the middle of this term									
Semester Total	17				Semester Total	12			
Degree Total: 136									

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- ^^STA 323 and 424/425 can be used to satisfy the MTH 300 or 400 level elective requirement. MTH 300/400 level offerings are on annual rotations and consultation with an advisor is highly recommended to plan them accordingly