

Cleveland State University
College of Sciences and Health Professions
Bachelor of Science in Mathematics
- NEW FALL 2014 -

First Year

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	X	M/QL
MTH 181 Calculus I	4	X	M/QL	PHY 241 University Physics I	5	X	NS
Social Science Elective	3		SS	Arts & Humanities Elective	3		A&H
Science Elective**	3	X		General Elective*	3		
Semester Total	14			Semester Total	18		

Second Year

Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed
MTH 281 Multivariable Calculus	4	X		MTH 286 Differential Equations	3	X	
MTH 220 Discrete Mathematics	3	X		MTH 288 Linear Algebra	3	X	
PHY 242 University Physics II	5	X	NS	US Diversity Elective	3		DIV
Social Science Elective (outside the US/ALAAME)	3		SS	Science Elective**	3	X	
				General Elective*	3		
Semester Total	15			Semester Total	15		

Third Year

Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed
MTH 300-Level Course	3	X		MTH 396 Junior Seminar	2	X	
MTH 300-Level Course	3	X		MTH 358 Abstract Algebra (Recommended as 300-level elective)	3	X	WAC
Science Elective**	3	X		MTH 300-Level Course	3	X	
Arts & Humanities Elective (outside the US/ALAAME)	3		A&H	African American Experience Elective	3		DIV
Upper-Division General Elective*	3			Science Elective**	3	X	
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	X		MTH 400-Level Course	3	X	
MTH 400-Level Course	3	X		MTH 496 Senior Project	3	X	WAC; CAP
Writing Across the Curriculum Elective	3		WAC	Upper-Division General Elective*	3		
Upper-Division General Elective*	3			Upper-Division General Elective*	3		
Upper-Division General Elective*	3			General Elective*	3		
Apply for Spring graduation prior to Sep 9th							
Semester Total	15			Semester Total	15		
Degree Total (as listed in above sample): 121 (120 hours minimum required to earn degree)							

Assumptions: college-level readiness in MTH & ENG; no Foreign Language Deficiency

College/ Program Notes:

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.

*Electives ensure that a student accumulates the minimum credit hour totals needed for graduation. Students must have a minimum of 120 total credit hours, of which a minimum of 42 credit hours must be upper division (300 or 400-level courses). Depending upon other elective choices made, students may not need as many electives as indicated above, or may need additional electives.

**Science Electives should be chosen from one or any combination of the following fields: BIO, GEO, EVS, CHM, PHY, and CISOR from MTH 347,421,431,435,436,437. Please refer to the Undergraduate Catalog for more details.

University Notes:

Gen Ed Key:	SS = Social Sciences (two courses, one of which must be focused outside the US**) A&H = Arts & Humanities (two courses, one must be focused outside the US**) DIV = Social Diversity (two courses; one US Diversity and one African American Experience) WAC/SPAC = Writing/Speaking Across the Curriculum (three courses, one in the major; C or better required) CAP = Capstone ** of the SS and A&H courses focused outside the US, one must be focused on Africa, Latin America, Asia or the Middle East (ALAAME)
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Cleveland State University
College of Sciences and Health Professions
Bachelor of Science in Mathematics
CSUteach (minor in Education)

First Year									
Fall Semester	Credits	Major	Minor	Gen Ed	Spring Semester	Credits	Major	Minor	Gen Ed
ASC 101: Intro to University Life	1			Intro	EUT 201: Step 1: Inquiry Approaches to Teaching	1		x	
ENG 101: College Writing I	3			W/C	ENG 102: College Writing II	3			W/C
Science Elective	3	x		NS	PHY 241/243/H: University Physics I	5	x		NS
PSY 221: Adolescent Psychology	3		x	SS	Social Science Elective (outside US**)	3			SS
MTH 181: Calculus I	4	x	x	M/QL	MTH 182: Calculus II	4	x	x	M/QL
<i>Semester Total</i>	14				<i>Semester Total</i>	16			

Second Year									
Fall Semester	Credits	Major	Minor	Gen Ed	Spring Semester	Credits	Major	Minor	Gen Ed
EUT 215: Step 2: Inquiry-Based Lesson Design in Mathematics	1		x		EDC 300: Div in Edu Settings	3		x	DIV
MTH 220: Discrete Mathematics	3	x	x		MTH 286: Differential Equations	3	x		
MTH 281: Multivariable Calculus	4	x	x		MTH 288: Linear Algebra	3	x	x	
Arts & Humanities Elective (outside US**)	3			A&H	Science Elective	3	x		
PHY 242/244/H: University Physics II	5	x		NS	African American Experience Elective	3			DIV
<i>Semester Total</i>	16				<i>Semester Total</i>	15			

Third Year									
Fall Semester	Credits	Major	Minor	Gen Ed	Spring Semester	Credits	Major	Minor	Gen Ed
EUT 302: Knowing & Learning	3		x		EUT 305: Classroom Interactions	3		x	
MTH 301: Introduction to Number Theory	3	x	x		MTH 358: Abstract Algebra	3	x	x	WAC
MTH 333: Geometry	3	x	x		MTH 4xx Elective	3	x		
EDL 305: Content Area Literacy	3		x		MTH 201: Functions & Modeling	3		x	
MTH 323: Statistical Methods	3	x	x		Science Elective	3			
<i>Semester Total</i>	15				<i>Semester Total</i>	15			

Fourth Year									
Fall Semester	Credits	Major	Minor	Gen Ed	Spring Semester	Credits	Major	Minor	Gen Ed
EUT 315: Project Based Instruction in Math	3		x		EST 499: CSUteach STEM Apprentice Teaching	6		x	
EST 399: CSUteach STEM Apprentice Teaching	1		x		EUT 210: Perspectives on Science & Math	3		x	A&H/WAC
SCI 311: Research Methods	3		x	WAC	MTH 496: Senior Project	3	x		WAC/CAP
MTH 424: Probability Theory & Application	3	x	x		General Elective	3			
MTH 396: Junior Seminar	2	x							
MTH 4xx Elective	3	x							
Apply for Spring graduation prior to Sep 9th									
<i>Semester Total</i>	15				<i>Semester Total</i>	15			

Degree Total: 121

Assumptions: college-level readiness in MTH & ENG; no Foreign Language Deficiency

College/ Program Notes:

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*Electives ensure that a student accumulates the minimum credit hour totals needed for graduation. Students must have a **minimum of 120 total credit hours**, of which a **minimum of 42 credit hours** must be upper division (300 or 400-level courses). Depending upon other elective choices made (3 credit hour vs. 4 credit hour courses), students may not need as many general electives as indicated above, or may need additional electives.

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W/C = Writing/Composition (two courses; C or better require	DIV = Social Diversity (two courses; one US Diversity and one African American Exper
M/QL = Mathematics/Quantitative Literacy (two courses)	WAC/SPAC = Writing/Speaking Across the Curriculum (three courses, one in the major
NS = Natural Sciences (two courses, one of which must have a lab)	CAP = Capstone
** of the SS and A&H courses focused outside the US, one must be focused on Africa, Latin America, Asia or the Middle East (ALAAME)	

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College of Sciences and Health Professions
Bachelor of Science in Mathematics
CSUteach (minor in Physics, minor in Education)

First Year														
Fall Semester	Credits	Major	Minor	Gen Ed	Spring Semester	Credits	Major	Minor	Gen Ed	Summer Semester	Credits	Major	Minor	Gen Ed
ASC 101: Intro to University Life	1			Intro	EUT 201: Step 1: Inquiry Approaches to Teaching	1		x						
ENG 101: College Writing I	3			W/C	ENG 102: College Writing II	3			W/C					
Arts & Humanities Elective (outside U	3			A&H	PHY 241/243/H: University Physics I	5	x	x	NS					
PSY 221: Adolescent Psychology	3		x	SS	Social Science Elective (outside US*	3			SS					
MTH 181: Calculus I	4	x	x	M/QL	MTH 182: Calculus II	4	x	x	M/QL					
<i>Semester Total</i>	14				<i>Semester Total</i>	16				<i>Semester Total</i>	0			

Second Year														
Fall Semester	Credits	Major	Minor	Gen Ed	Spring Semester	Credits	Major	Minor	Gen Ed	Summer Semester	Credits	Major	Minor	Gen Ed
EUT 215: Step 2: Inquiry-Based Lesson Design in Mathematics	1		x		EDC 300: Div in Edu Settings	3		x	DIV					
MTH 220: Discrete Mathematics	3	x	x		MTH 286: Differential Equations	3	x							
MTH 281: Multivariable Calculus	4	x	x		MTH 288: Linear Algebra	3	x	x						
EVS 206/207: Intro to Env Science +	4		x	NS	MTH 201: Functions & Modeling	3		x						
PHY 242/244/H: University Physics I	5	x	x	NS	PHY 330: Modern Physics	3		x						
<i>Semester Total</i>	17				<i>Semester Total</i>	15				<i>Semester Total</i>	0			

Third Year														
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EUT 302: Knowing & Learning	3		x		EUT 305: Classroom Interactions	3		x		CHM 380: Prin of Chem Mid Sch Teachers	3		x	
MTH 301: Introduction to Number Th	3	x	x		MTH 358: Abstract Algebra	3	x	x	WAC	BIO 380/381: Bio Content Mid Sch Teachers + Lab	4		x	
MTH 333: Geometry	3	x	x		MTH 4xx Elective	3	x							
African American Experience Elective	3			DIV	EDL 305: Content Area Literacy	3		x						
PHY 470: Environmental Physics	3	x	x		MTH 323: Statistical Methods	3	x	x						
<i>Semester Total</i>	15				<i>Semester Total</i>	15				<i>Semester Total</i>	7			

Fourth Year														
Fall Semester	Credits	Major	Minor	Gen Ed	Spring Semester	Credits	Major	Minor	Gen Ed	Summer Semester	Credits	Major	Minor	Gen Ed
EUT 315: Project Based Instruction in Mathematics	3		x		EST 499: CSUteach STEM Apprentice Teaching II	6		x						
EST 399: CSUteach STEM Apprentice Teaching I	1		x		EUT 210: Perspectives on Science &	3		x	&H/WAC					
SCI 311: Research Methods	3		x	WAC	MTH 496: Senior Project	3	x		WAC					
MTH 424: Probability Theory & Appli	3	x	x		MTH 4xx Elective	3	x							
MTH 396: Junior Seminar	2	x												
PHY 474: Thermal Physics	4	x	x	CAP										
Apply for Spring graduation prior to Sep 9th														
<i>Semester Total</i>	16				<i>Semester Total</i>	15				<i>Semester Total</i>	0			
<i>Degree Total: 130</i>														

Assumptions: college-level readiness in MTH & ENG; no Foreign Language Deficiency

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