

# Bachelor of Arts/Science in Mathematics

The Bachelor of Arts / Science in Mathematics degree has six basic components:

1. General Education & Institutional Requirements
2. Foreign Language Requirement (Bachelor of Arts only)
3. Mathematics Core Requirements
4. Mathematics Electives
5. Mathematics Program Requirements
6. Electives: college-level courses from any prefix to meet Graduation Requirements (p. 2)

## DSU General Education & Institutional Requirements

All DSU General Education and Institutional requirements must be fulfilled. A previously earned degree may fulfill those requirements, but courses must be equivalent to DSU's minimum General Education standards in American Institutions, English, and Mathematics.

Code	Title	Hours
<b>Institutional Requirement in Computer Literacy</b> (catalog.dixie.edu/programs/generaleducation/#gerequirementstext)		
	Computer Literacy	0-6
<b>General Education Core Requirements</b> (catalog.dixie.edu/programs/generaleducation/#gerequirementstext)		
	English	3-7
	Information Literacy	0-1
	Mathematics	3-5
	American Institutions	3-6
	Life Sciences	3-10
	Physical Sciences	3-5
	Laboratory Science	0-1
	Fine Arts	3
	Literature/Humanities	3
	Social & Behavioral Sciences	3
	Exploration	3-5
	Two (2) Global & Cultural Perspectives Courses	0-6

Code	Title	Hours
<b>Bachelor of Arts: Foreign Language Requirement</b>		3-16
<b>Complete one of the following:</b>		
- Complete 16 credits in a single foreign language, through earned credit (grade C or higher), credit by examination, or vertical credit from the courses listed on the GE Foreign Language Requirement page <sup>1</sup>		
- Complete a 2020 or higher foreign language course (grade C or higher)		
- Complete a 3060 foreign language course listed below (grade C or higher)		
- Receive 16 transfer credits for GEFL 1000 (8) and GEFL 2000 (8) in a single foreign language (grade C or higher)		
<b>OR</b>		
<b>Complete a 1020 course listed below in a second foreign language (grade C or higher) AND one of the following:</b>		
1. In a language not taught at DSU, receive 12 FLATS exam credits for FLAT 1000 (8) and FLAT 2000 (4)		
or		
2. In a language not taught at DSU, receive 12 transfer credits articulated as GEFL 1000 (8) and GEFL 2000 (4) (all grade C or higher)		
<b>OR</b>		
<b>Available only to students who are nonnative English speakers, complete one of the following:</b>		
- Complete 16 credits of ESL courses listed below (grade B or higher)		
- Complete ESL 2750 (catalog.dixie.edu/search/?P=ESL%202750) or ESL 2760 (catalog.dixie.edu/search/?P=ESL%202760) (grade B or higher).		
- Submit one of the following test scores required for unconditional DSU admission: TOEFL (61 iBT, 173 CBT, or 500 PBT); or Michigan (70); or USU-IELE equivalent score. Other tests may be accepted for admission to DSU but will not fulfill this requirement. Official scores must be submitted to the Registrar's Office.		

Total Hours

3-16

<sup>1</sup> General Education Foreign Language Classes may be found on the General Education page ([catalog.dixie.edu/programs/generaleducation/#foreignlanguage requirementtext](http://catalog.dixie.edu/programs/generaleducation/#foreignlanguage requirementtext)).

### Core Discipline Requirements

MATH 1210	Calculus I	4
MATH 1220	Calculus II	4
MATH 2200	Discrete Mathematics	3
MATH 2210	Multivariable Calculus	4
MATH 2270	Linear Algebra	3
MATH 2280	Ordinary Differential Equation	3
MATH 3200	Introduction to Analysis I	3
MATH 3400	Probability & Statistics	3
MATH 3900	Number Theory	3
MATH 4000	Foundations of Algebra	3
MATH 4900	Senior Capstone Seminar	3

### Mathematics Electives

Complete 12 credits from the following:

MATH 3000	History of Mathematics	3
MATH 3100	Euclidean / Non-Euclidean Geom	3
MATH 3150	Introduction to Partial Differential Equations	3
MATH 3210	Introduction to Analysis II	3
MATH 3500	Numerical Analysis	3
MATH 4010	Abstract Algebra	3
MATH 4100	Introduction to Topology	3
MATH 4200	Introduction to Complex Analysis	3
MATH 4890R	Independent Research	1-3

### Mathematics Program Requirements

CS 1400	Fundamentals of Programming	3
PHYS 2210 & PHYS 2215	Physics/Scientists Engineers I and Physics/Scientists Engineers Lab	5
PHYS 2220 & PHYS 2225	Physics/Scientists EngineersII and Physics/Scientists Engineers II Lab	5

## Graduation Requirements

1. Complete a minimum of 120 college-level credits (1000 and above).
2. Complete at least 40 upper-division credits (3000 and above).
3. Complete at least 30 upper-division credits at DSU for institutional residency
4. Grade C or higher (not C-) required in each Core Discipline Requirement, Mathematics Required Elective, and Mathematics Program Requirement course.
5. Cumulative GPA 2.0 or higher

## Graduation Plan

Course	Title	Hours
<b>1st Year</b>		
<b>Fall Semester</b>		
MATH 1001	FYE: Mathematics	1
MATH 1210	Calculus I	4
CIS 1200	Computer Literacy	3
General Education (American Institutions) ( <a href="http://catalog.dixie.edu/programs/generaleducation/#gerequirementstext">catalog.dixie.edu/programs/generaleducation/#gerequirementstext</a> )		3
General Education (Fine Arts) ( <a href="http://catalog.dixie.edu/programs/generaleducation/#gerequirementstext">catalog.dixie.edu/programs/generaleducation/#gerequirementstext</a> )		3
General Elective		1
Hours		15
<b>Spring Semester</b>		
MATH 1220	Calculus II	4

ENGL 1010	Introduction to Writing	3
LIB 1010	Information Literacy	1
General Education (Life Sciences) (catalog.dixie.edu/programs/generaleducation/#gerequirementstext)		3
General Education (Social & Behavioral Sciences) (catalog.dixie.edu/programs/generaleducation/#gerequirementstext)		3
General Elective		1
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Hours		15
<b>2nd Year</b>		
<b>Fall Semester</b>		
MATH 2200	Discrete Mathematics	3
MATH 2270	Linear Algebra	3
ENGL 2010	Interm Writing Selected Topics:	3
PHYS 2210 & PHYS 2215	Physics/Scientists Engineers I and Physics/Scientists Engineers Lab	5
General Elective		1
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Hours		15
<b>Spring Semester</b>		
MATH 2210	Multivariable Calculus	4
MATH 2280	Ordinary Differential Equation	3
CS 1400	Fundamentals of Programming	3
PHYS 2220 & PHYS 2225	Physics/Scientists EngineersII and Physics/Scientists Engineers II Lab	5
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Hours		15
<b>3rd Year</b>		
<b>Fall Semester</b>		
MATH 4000	Foundations of Algebra	3
MATH Elective (Approved MATH Elective)		3
MATH Elective (Approved MATH Elective)		3
General Education (Exploration) (catalog.dixie.edu/programs/generaleducation/#gerequirementstext)		3
Upper Division Elective		3
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Hours		15
<b>Spring Semester</b>		
MATH 3400	Probability & Statistics	3
MATH Elective (MATH Elective (see list))		3
MATH Elective (MATH Elective (see list))		3
General Education (Global and Cultural Perspectives) (catalog.dixie.edu/programs/generaleducation/#gerequirementstext)		3
General Elective		3
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Hours		15
<b>4th Year</b>		
<b>Fall Semester</b>		
MATH 3200	Introduction to Analysis I	3
MATH Elective (Approved MATH Elective)		3
General Education (Global and Cultural Perspectives) (catalog.dixie.edu/programs/generaleducation/#gerequirementstext)		3
Upper Division Elective		3
Upper Division Elective		3
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Hours		15
<b>Spring Semester</b>		
MATH 3900	Number Theory	3
MATH 4900	Senior Capstone Seminar	3
General Education (Literature/Humanities) (catalog.dixie.edu/programs/generaleducation/#gerequirementstext)		3
Upper Division Elective		3

Upper Division Elective	3
Hours	15
Total Hours	120

**\*NOTE:** Please see Math Department Advisor for degree plan