

# MATHEMATICS MAJOR

The Mathematics Department offers concentrations in mathematics and mathematics/secondary education; it also offers a major in data science jointly with the Computer Science Department. Information about the Data Science major is in a separate section for that major. Students may not earn majors in both Mathematics and Data Science. Students may not earn a minor in Mathematics with a major in Data Science.

## Acceptance to Major Requirements

Course Requirements:

Code	Title	Hours
MATH 119	Calculus I	4
MATH 120	Calculus II	4
MATH 239	Linear Algebra	4
or MATH 304	Foundations and Structures of Mathematics	

Minimum Grade and/or GPA for required courses: 2.00 GPA

Minimum Cumulative GPA: 2.00

### 40 credits required

Code	Title	Hours
MATH 119	Calculus I	4
MATH 120	Calculus II	4
One of the following:		4
MATH 239	Linear Algebra	
MATH 306	Differential Equations and Linear Algebra	
MATH 279A	Mathematical Problem Solving	4
MATH 304	Foundations and Structures of Mathematics	4
One of the following:		4
MATH 331	Algebraic Structures I	
MATH 343	Analysis I	
Select 16 additional upper-division credits in mathematics		16
<b>Total Hours</b>		<b>40</b>

Students anticipating a major in mathematics and/or the natural sciences ordinarily begin their study of mathematics with MATH 119 Calculus I. However, a student needing further preparation before beginning calculus should enroll in MATH 115 Pre-Calculus Mathematics. Students interested in advanced placement should contact the department chair.

## Additional Requirements:

### General Education Requirements:

All undergraduate students must complete the requirements of the Integrations Curriculum (IC) which is designed to ensure all of our students receive a liberal arts education. Please review details of the Integrations Curriculum (<https://catalog.csbsju.edu/catalog/academic-programs-policies-regulations/integrations-curriculum/>) requirements here (<https://catalog.csbsju.edu/catalog/academic-programs-policies-regulations/integrations-curriculum/>).

## Graduation Requirements:

In addition to the Integrations Curriculum, all undergraduate students must meet the following minimum degree requirements to earn their degree from CSB and SJU.

**Credits:** 124 total credits, 40 of which must be from upper division coursework

**GPA:** 2.0 or higher\*

**Residency:** At least 24 of your last 32 credits must be completed at CSB and SJU

Please visit Graduation (<https://catalog.csbsju.edu/catalog/academic-programs-policies-regulations/graduation/>) under the Academic Policies and Regulations (<https://catalog.csbsju.edu/catalog/academic-programs-policies-regulations/>) portion of the catalog for additional details regarding degree requirements.

\* *Cumulative GPA as well as major(s)/minor(s) GPA. Please note some majors/minors may require a higher GPA to earn their degree.*

## Four Year Plan

Course	Title	Hours
<b>First Year</b>		
<b>Fall</b>		
INTG 105	College Success	1
INTG 100	Learning Foundations	4
Language 111		4
MATH 119	Calculus I	4
Elective (Integrations Requirement)		4
<b>Hours</b>		<b>17</b>
<b>Spring</b>		
Elective (Integrations Requirement)		4
THEO 100	Theological Explorations	4
Language 112		4
MATH 120	Calculus II	4
<b>Hours</b>		<b>16</b>
<b>Second Year</b>		
<b>Fall</b>		
Elective (Integrations Requirement)		4
Language 211		4
MATH 239	Linear Algebra	4
Elective (Integrations Requirement)		4
<b>Hours</b>		<b>16</b>
<b>Spring</b>		
Elective (Integrations Requirement)		4
Elective (Integrations Requirement)		4
Elective (Integrations Requirement)		4
MATH 279A	Mathematical Problem Solving	4
<b>Hours</b>		<b>16</b>
<b>Third Year</b>		
<b>Fall</b>		
Study Abroad		16
Global Engagement/Experiential Engagement		
<b>Hours</b>		<b>16</b>
<b>Spring</b>		
Elective (Integrations)		4
Elective (Integrations)		4
MATH 304	Foundations and Structures of Mathematics	4
MATH 3@@@		4
<b>Hours</b>		<b>16</b>

## 2 Mathematics Major

### Fourth Year

#### Fall

Theological Integrations (TI)	4
Elective (Integrations Requirement)	4
MATH 3@@	4
One of:	4
MATH 331      Algebraic Structures I	
MATH 343      Analysis I	
<b>Hours</b>	<b>16</b>

#### Spring

INTG 300      Learning Integrations	4
Elective (Integrations Requirement)	4
MATH 3@@	4
MATH 3@@	4
<b>Hours</b>	<b>16</b>
<b>Total Hours</b>	<b>129</b>