

## BS Mathematics- Traditional (Fall 2024 & Later)

**Minimum 120 credits required for Bachelor's degree**

### Foundational Core (27-29 Credits)

**Grade**

FYWS-125 <sup>1</sup>	First Year Seminar	
MA	Foundational Core Math course	xxxx
Choose 1 course from each area *		
<sup>2</sup> Natural/Physical Science		
Literature		
History	HI-100, HI-102 or HI-110	
Arts/Design/Comm.		
Philosophy		
Theology/Relig		
Social/Behavioral Science		

### Human Journey Seminars: Great Books in CIT (6 Credits)

CIT 201	CIT Seminar I	
CIT 202	CIT Seminar II	

### Liberal Arts Explorations (LAE) (12 Credits Total)

**Student must complete 4 courses from at least 2 different subjects and one course in each area. (see list on Registrar's Website - checksheets)**

Humanistic Inquiry (3 credits)		
Social and Global Awareness (3 credits)		
Scientific Literacy (3 credits)		
LAE in any area (3 credits)		

\* See list of courses.

<sup>1</sup>(Requires Grade C or higher)

<sup>2</sup>Science/Natural Science courses includes approved Math and Computer Science courses. Students are required to take at least one course in Biology, Chemistry, or Physics in the Foundational or Liberal Arts Exploration Core. CS and MA courses may be used as a Science/Natural Science

in either the Foundational Core **or** as a requirement in the LAE Core but not in both categories.

Note: MA 006 and ESL courses **will not** count towards the 120 credit graduation requirement.

Approved Study Abroad courses may be used

to satisfy requirements for the foundational core or a Liberal Arts Exploration

A maximum of 8 Applied Music credits may be applied towards graduation

### Required Curriculum for Degree in Major

**Grade**

MA 151	Calculus I	
MA 152	Calculus II	
MA 201	Introduction To LaTeX	
MA 253	Calculus III	
MA 261	Linear Algebra	
MA 301	Mathematical Structures and Proofs	
MA 362	Abstract Algebra	
MA 371	Real Analysis	
MA 398	Senior Seminar	
MA ____	One of MA 254, 331, 332, 337, 341, 349 (applied elective)	
MA ____	Mathematical Elective*	
MA ____	Mathematical Elective*	
<b>Two of the following:</b>		
MA ____	Pure electives:	MA
MA ____	314, 318, 320, 325, 372	
* Mathematics electives must be at the 250-level or above. Students may not earn credit for both MA 279 and MA 280		

### Required Supporting courses

**Grade**

Choose ONE of the following sequences:

	Biology 111/113 & 112/114	
	Chemistry 151/153 & 152/154	
	Physics 151/153 & 152/154	
	Economics 202 & 203	
	Computer Science 111 & 112	

### General Electives (number of credits vary)

**Grade**


### Checksheet Key

T	Course transferred and Requirement satisfied
W	Requirement waived
TW	Course transferred and Requirement waived

**SACRED HEART UNIVERSITY**  
**College of Arts and Sciences**

**BS Mathematics- Traditional (Fall 2024 & Later)**

The Bachelor of Science program in Mathematics (Traditional) at Sacred Heart University is designed to prepare students for advanced studies or employment in areas where analytical and computational skills are in demand. The Mathematics curriculum was developed in accordance with the recommendations of the Committee on the Undergraduate Program in Mathematics of the Mathematical Association of America. It consists of courses which prepare our students for a variety of successful careers in finance, statistics, computer science, engineering, or education. The traditional concentration is ideal for students who plan to pursue a secondary education teaching certificate in mathematics, and for students who intend to pursue graduate studies in mathematics. The Mathematics major requires completion of 40 credits in Math plus a 6-8 credit sequence in a supporting discipline.

***SUGGESTED FOUR YEAR SEQUENCE OF STUDY:***

<b>YEAR 1</b>	<b>SEMESTER 1</b>	<b>YEAR 1</b>	<b>SEMESTER 2</b>
FYWS 125	First Year Writing Seminar	MA152	Calculus II
MA151	Calculus I		Foundational Core
	Foundational Core		Foundational Core
	Foundational Core		Foundational Core
	Foundational Core		Liberal Arts Explorations

<b>YEAR 2</b>	<b>SEMESTER 3</b>	<b>YEAR 2</b>	<b>SEMESTER 4</b>
MA 253	Calculus III	MA 261	Linear Algebra
MA 201	Introduction to LaTeX	MA ____	Mathematics Elective (pure)
MA 301	Mathematical Structures and Proofs	CIT 202	Catholic Intellectual Tradition Seminar II
CIT 201	Catholic Intellectual Tradition Seminar I		Liberal Arts Explorations
	Foundational Core		Liberal Arts Explorations
	Liberal Arts Explorations		

<b>YEAR 3</b>	<b>SEMESTER 5</b>	<b>YEAR 3</b>	<b>SEMESTER 6</b>
MA 371	Real Analysis	MA 362	Abstract Algebra
MA ____	Mathematics Elective (applied)	MA ____	Mathematics Elective (pure)
	Required Supporting Course		Required Supporting Course
	Free Elective		Free Elective
	Free Elective		Free Elective

<b>YEAR 4</b>	<b>SEMESTER 7</b>	<b>YEAR 4</b>	<b>SEMESTER 8</b>
MS 398	Senior Seminar in Mathematics	MA ____	Mathematics Elective
MA ____	Mathematics Elective		Free Elective
	Free Elective		Free Elective
	Free Elective		Free Elective
	Free Elective		Free Elective

**Note: Foundational Core should be completed by the end of Sophomore year.**