

BS Biochemistry (Fall 2024 & Later)

Minimum 120 credits required for Bachelor's degree

Foundational Core (27-29 Credits)

Grade

FYWS-125 ¹	First Year Seminar	
MA	Foundational Core Math course	
Choose 1 course from each area *		
² Natural/Physical Science		
Literature		
History	HI-100,102,110, or 115	
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.

¹(Requires Grade C or higher)

⁴Science/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 Biochemistry major (41 credits)

Grade

CH 151	General Chemistry 1	
CH 152	General Chemistry 2	
CH 153	General Chemistry 1 Lab	
CH 154	General Chemistry 2 Lab	
CH 221	Organic Chemistry 1	
CH 222	Organic Chemistry 2	
CH 223	Organic Chemistry 1 Lab	
CH 224	Organic Chemistry 2 Lab	
CH 252	Analytical Chemistry	
CH 254	Analytical Chemistry Lab	
CH 331	Physical Chemistry 1	
CH 333	Physical Chemistry 1 Lab	
CH 341	Biochemistry I	
CH 342	Biochemistry II	
CH 343	Biochemistry I lab	
CH 344	Biochemistry II lab	
CH 395 &/or	Research or	
CH 390	Internship/Project (minimum 3 credits)	

Restricted Electives (6 cr. Required, at least 3 biology)

Grade

CH 326	Medicinal Chemistry	
CH 332	Physical Chemistry 2	
CH 334	Physical Chemistry 2 Lab	
CH 351	Instrumental Analysis	
CH 353	Instrumental Analysis Lab	
CH 347	Computational Chemistry	
CH 354	Bioinformatics	
BI 306	Pharmacology	
BI 311	Cell Biology	
BI 313	Cell Biology Lab	
BI 320	Applied Molecular Genetics	
BI 335	Topics in Genetics	
BI 355	Molecular Biology	

Required Supporting courses

Grade

BI 111	Concepts in Biology I	
BI 112	Concepts in Biology II	
BI 113	Concepts in Biology I Lab	
BI 114	Concepts in Biology II Lab	
BI 201	Genetics & Evolution	
BI 203	Genetics & Evolution: Org. to Pop. Lab	
MA 151	Calculus 1	
PY 151	Principles of Physics 1 (or sub w/ PY 111)	
PY 152	Principles of Physics 2 (or sub w/ PY 112)	
PY 153	Principles of Physics 1 Lab (or sub w/ PY 113)	
PY 154	Principles of Physics 2 Lab (or sub w/ PY 114)	

Checksheet Key

T	Course transferred & requirement satisfied
W	Requirement waived
TW	Course transferred & requirement waived

SACRED HEART UNIVERSITY

School Name

Biochemistry Major (Fall 2024 & Later)

Description of major or career/graduate school opportunities (Optional)

Recommended for:

- Pre-Law
- Graduate Studies Toward a PhD Degree
- Work in Chemistry Industry
- Pre-med (with additional biology classes)
- Graduate Studies Towards a PhD Degree
- Work in Pharmaceutical & Biotechnology Industry

SUGGESTED FOUR YEAR SEQUENCE OF STUDY:

YEAR 1	SEMESTER 1	YEAR 1	SEMESTER 2
FYWS 125 or	First Year Seminar OR Foundational Core	FYWS 125 or	First Year Seminar OR Foundational Core
CH 151	General Chemistry 1	CH 152	General Chemistry 2
CH 153	General Chemistry 1 Lab	CH 154	General Chemistry 2 Lab
BI 111	Concepts in Biology 1	BI 112	Concepts in Biology 2
BI 113	Concepts in Biology 1 Lab	BI 114	Concepts in Biology 2 Lab
MA 151	Calculus 1		Foundational Core
	Foundational Core		Foundational Core

YEAR 2	SEMESTER 3	YEAR 2	SEMESTER 4
CIT 201	Catholic Intellectual Tradition Seminar	CIT 202	Catholic Intellectual Tradition Seminar
PY 151 or 111	Principles of Physics 1	PY 152 or 112	Principles of Physics 2
PY 153 or 113	Principles of Physics 1 lab	PY 154 or 114	Principles of Physics 2 Lab
CH 221	Organic Chemistry 1	CH 222	Organic Chemistry 2
CH 223	Catholic Intellectual Tradition Seminar	CH 224	Organic Chemistry 2 Lab
	Foundational Core	BI 201	Genetics & Evolution: Org. to Pop.
		BI 203	Genetics & Evolution: Org. to Pop. Lab

YEAR 3	SEMESTER 5	YEAR 3	SEMESTER 6
CH 331	Physical Chemistry 1	CH 252	Analytical Chemistry
CH 333	Physical Chemistry 1 Lab	CH 254	Analytical Chemistry Lab
CH 341	Biochemistry I	CH 342	Biochemistry 2
CH 343	Biochemistry I Lab	CH 344	Biochemistry 2 Lab
	Liberal Arts Exploration		Liberal Arts Exploration
	Foundational Core		Foundational Core

YEAR 4	SEMESTER 7	YEAR 4	SEMESTER 8
BI xxx	Biology Restricted elective	BI xxx/CH xxxx	Restricted Elective
CH 390 / 395	Internship / Research Project		Elective
	Liberal Arts Exploration		Elective
	Elective		Elective
	Elective		Elective
	Elective		