BS BIOCHEMISTRY (Fall 2019 & Later)

Minimum 120 credits required for Bachelor's degree

Foundational Core (30-32 Credits)		**Grade**
FYWS125 *[1]	First Year Seminar	
CTL 125	Critical Thinking	
MA	Foundational Core Math course	
Choose 1 course from each area *		
Natural/Physical Science *[2]		
Literature		
History	HI-100 or HI-102	
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 (9 Credits Total)

Student must complete 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)		

* See list of courses.

[1](Requires Grade C or higher)

[2]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

58 Credits required from core and supporting courses		**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 1	
CH 342	Biochemistry 2	
CH 343	Biochemistry 1 Lab	
CH 344	Biochemistry 2 Lab	
CH 395 / CH 390	Research Project / Internship	

Required Supporting Courses		**Grade**
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	
BI 201	Genetics & Evolution: Org. to Pop.	
BI 203	Genetics & Evolution: Org. to Pop. Lab	
MA 140	Precalculus	
MA 151	Calculus 1	
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	

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 Molecuilar Genetics	
BI 335	Topics in Genetics	
BI 355	Molecular Biology	
MA131/2/3 or MA 331	Statistics, Biostatistics, or Methematical Probability and Statistics	
MA 152	Calculus 2	

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 Biochemistry (Fall 2019 & Later)

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

Recommended for:

Pre-Med
Pre-Pharmacy
Pre-Law
Graduate Degree in Forensic Science
Graduate Studies Towards a PhD Degree
Work in Pharmaceutical & Biotechnology Industry

SUGGESTED FOUR YEAR SEQUENCE OF STUDY:

YEAR 1	SEMESTER I	YEAR 1	SEMESTER 2
FYWS 125 or	First Year Seminar OR	FYWS 125 or	First Year Seminar OR
CTL 125	Critical Thinking	CTL 125	Critical Thinking
MA 151	Calculus 1	BI 112	Concepts in Biology 2
CH 151	General Chemistry 1	BI 114	Concepts in Biology 2 Lab
CH 153	General Chemistry 1 Lab	CH 152	General Chemistry 2
BI 111	Concepts in Biology 1	CH 154	General Chemistry 2 Lab
BI 113	Concepts in Biology 1 Lab		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 or113	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	Organic Chemistry 1 Lab	CH 224	Organic Chemistry 2 Lab
		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 (spring even years)
CH 333	Physical Chemistry 1 Lab	CH 254	Analytical Chemistry Lab (spring even years)
CH 341	Biochemsitry 1	CH 342	Biochemistry 2
CH 343	Biochemistry 1 Lab	CH 344	Biochemistry 2 Lab
	Foundational Core	CH 351	Instrumental Analysis (spring even yr) elective**
	Foundational Core	CH 353	Instrumental Analysis Lab (spring even yr) elective**
			Foundational Core / Elective

YEAR 4	SEMESTER 7	YEAR 4	SEMESTER 8
CH 331	Physical Chemistry 1	CH 252	Analytical Chemistry (spring even years)
CH 333	Physical Chemistry 1 Lab	CH 254	Analytical Chemistry Lab (spring even years)
CH 390 / 395	Internship / Research Project		Liberal Arts Exploration
	Liberal Arts Exploration		Elective
	Liberal Arts Exploration		Elective
	Elective		Elective
	Elective		Elective

****Students take Analytical during spring of Junior or Senior year depending on schedule**
****Students take Physical/Instrumental during Junior or Senior year depending on schedule**

3/23/2021