

# BS CHEMISTRY (Fall 2019 & Later)

## Minimum 120 credits required for Bachelor's degree

Foundational Core (30-32 Credits)		Grade
FYWS 125 * <sup>1</sup>	First Year Seminar	
CTL 125	Critical Thinking	
MA 151	Foundational Core Math course	
<i>Choose 1 course from each area *</i>		
Natural/Physical Science * <sup>2</sup>		
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.

<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
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 351	Instrumental Analysis	
CH 353	Instrumental Analysis Lab	
CH 251	Inorganic Chemistry	
CH 253	Inorganic Chemistry Lab	
CH 341	Biochemistry I	
CH 343	Biochemistry I lab	
CH 395 AND/OR CH 390	Research or Internship/Project (minimum 3 credits)	
<b>At least 7 credits from the following list</b>		
CH 342	Biochemistry II	
CH 344	Biochemistry II Lab	
CH 332	Physical Chemistry II	
CH 334	Physical Chemistry II Lab	
CH 399	Special topics (can be repeated if different topic)	
CH 355	Advanced Inorganic chemistry ** (to be 3 credits)	

## Required Supporting Courses

		Grade
MA 151	Calculus 1	
MA 152	Calculus 2	
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)	

## 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 Chemistry (Fall 2019 & 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)

**SUGGESTED FOUR YEAR SEQUENCE OF STUDY:**

YEAR 1	SEMESTER 1	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
CH 151	General Chemistry 1	CH 152	General Chemistry 2
CH 153	General Chemistry 1 Lab	CH 154	General Chemistry 2 Lab
MA 151	Calculus 1	MA 152	Calculus 2
	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	Organic Chemistry 1 Lab	CH 224	Organic Chemistry 2 Lab
		CH 251	Inorganic Chemistry (offered Spring Odd years)**
		CH 253	Inorganic Chemistry Lab (offered Spring Odd years)**
		CH 252	Analytical Chemistry (offered Spring Even Years)**
		CH 254	Analytical Chemistry Lab (offered Spring Even years)**

YEAR 3	SEMESTER 5	YEAR 3	SEMESTER 6
CH 331	Physical Chemistry 1 (offered Fall Odd years)**	CH 251	Inorganic Chemistry (offered Spring Odd years)**
CH 333	Physical Chemistry 1 Lab (offered Fall Odd year)	CH 253	Inorganic Chemistry Lab (offered Spring Odd years)**
CH 341	Biochemistry I	CH 252	Analytical Chemistry (offered Spring Even Years)**
CH 343	Biochemistry I Lab	CH 254	Analytical Chemistry Lab (offered Spring Even Years)**
	Liberal Arts Exploration	CH 351	Instrumental Analysis (offered Spring Even Years)**
		CH 353	Instrumental Analysis Lab (offered Spring Even Years)**
			Advanced Chemistry elective
			Advanced Chemistry elective
			Foundational Core (if necessary)
			Liberal Arts Exploration
			Liberal Arts Exploration

YEAR 4	SEMESTER 7	YEAR 4	SEMESTER 8
	Advanced Chemistry Elective	CH 351	Instrumental Analysis (offered Spring Even Years)**
CH 395 / 390	Research Project and/or Internship	CH 353	Instrumental Analysis Lab (offered Spring Even Years)**
	Elective		Elective
	Elective		Elective
	Elective		Elective
	Elective		Elective

**\*\* Students take Analytical/Inorganic during spring of sophomore or junior year depending on schedule**