

B.A. CHEMISTRY

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COLLEGE of ARTS & SCIENCES
Language Requirement

All students who major in the College of Arts & Sciences are required to demonstrate competence in a second language. For complete details:

<https://www.gonzaga.edu/college-of-arts-sciences/about/information-for-students/language-requirement-information>

Credits Sem/Yr

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UNIVERSITY CORE REQUIREMENTS:**FUNDAMENTAL CORE COURSES****Year 1: Understanding & Creating**

	Credits	Sem	Yr
<i>Writing</i>			
ENGL 101 Writing (fulfills 3 credits Writing Enriched)*	3		
<i>Reasoning</i>			
PHIL 101 Reasoning	3		
<i>First Year Seminar</i>			
Dept. 193	3		
<i>Communication & Speech</i>			
COMM 100 Communication & Speech	3		
<i>Math</i>			
MATH (must be above Math 100)	3		
<i>Scientific Inquiry (2cr + 1cr lab)</i>			
BIOL or CHEM or PHYS 104/104L (taken year 1 or 2)	3		

Year 2: Being & Becoming

	Credits	Sem	Yr
<i>Christianity & Catholic Traditions</i>			
RELI (see approved list)**	3		
<i>Philosophy of Human Nature</i>			
PHIL 201 Philosophy of Human Nature	3		

Year 3: Caring & Doing

	Credits	Sem	Yr
<i>World/Comparative Religion</i>			
RELI (see approved list)** (fulfills 3cr Global Studies)*	3		
<i>Ethics</i>			
PHIL 301 Ethics or RELI 330 Principles-Christian Morality	3		

Year 4: Imagining the Possible

	Credits	Sem	Yr
<i>Core Integration Seminar</i>			
Dept. 432	3		

NOTE: some courses have pre-requisites, check the catalog carefully!

BROADENING COURSES - see approved list**

	Credits	Sem	Yr
Social & Behavioral Science	3		
Literature	3		
History	3		
Fine Arts & Design	3		

REQUIRED COURSE DESIGNATIONS - see approved list**

	Credits	Sem	Yr
*Writing Enriched	9 total		
Social Justice	3 total		
*Global Studies	6 total		

****for list of approved RELI, Broadening & Designated courses, see :**

<https://my.gonzaga.edu/academics/undergraduate-programs/general-degree-requirements-procedures/university-core>

B.A. CHEMISTRY:**55 CREDITS****LOWER DIVISION****37 Credits**

Course	Course Title	Credits	Grade
CHEM 101	General Chemistry	3	
CHEM 101L	General Chemistry Lab	1	
CHEM 205	Inorganic Chemistry	3	
CHEM 230	Organic Chemistry I	4	
CHEM 230L	Organic Chemistry I Lab	1	
CHEM 231	Organic Chemistry II	3	
CHEM 231L	Organic Chemistry II Lab	1	
CHEM 245	Biochemistry	3	
CHEM 245L	Biochemistry Lab	1	
CHEM 270	Career Development I	1	
MATH 157	Calculus-Analytic Geometry I	4	
MATH 258	Calculus-Analytic Geometry II	4	

One of the following sets of two courses:

Course	Course Title	Credits	Grade
PHYS 111	General Physics I	4	
PHYS 112	General Physics II	4	
OR			
PHYS 121	Scientific Physics I	4	
PHYS 122	Scientific Physics II	4	

UPPER DIVISION**18 Credits**

Course	Course Title	Credits	Grade
CHEM 310	Analytical Chemistry	3	
CHEM 310L	Analytical Chemistry Lab	2	
CHEM 355	Physical Chemistry	3	
CHEM 355L	Physical & Inorganic Chemistry Lab	1	
CHEM 370	Career Development II	1	
CHEM 399	Advanced Topic	2	
CHEM 485	Seminar	1	
CHEM 488	Senior Literature Review	1	

One Course in CHEM 405-435 (Block 1)

Course	Course Title	Credits	Grade
CHEM		2	

One Course in CHEM 455-480 (Block 2)

Course	Course Title	Credits	Grade
CHEM		2	

College of Arts and Sciences: 2023-2024
B.A. CHEMISTRY - SAMPLE Yearly Progression

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55 credits required for the Major

Freshman

<i>FALL</i>			<i>SPRING</i>		
Course	Course Title	Credit: Grade	Course	Course Title	Credits: Grade
CHEM	101 General Chemistry	3	CHEM	230 Organic Chemistry I	4
CHEM	101L General Chemistry Lab	1	CHEM	230L Organic Chemistry I Lab	1
MATH	157 Calculus-Analytic Geometry I	4	MATH	258 Calculus-Analytic Geometry II	4
	CORE ⁽¹⁾	3		CORE ⁽¹⁾	3
	CORE ⁽¹⁾	3		CORE ⁽¹⁾	3
14			15		

Sophomore

<i>FALL</i>			<i>SPRING</i>		
Course	Course Title	Credit: Grade	Course	Course Title	Credits: Grade
CHEM	231 Organic Chemistry II	3	CHEM	270 Career Development I	1
CHEM	231L Organic Chemistry II Lab	1	CHEM	310 Analytical Chemistry	3
CHEM	205 Inorganic Chemistry	3	CHEM	310L Analytical Chemistry Lab	2
	CORE ⁽²⁾	3		CORE ⁽²⁾	3
	CORE ⁽²⁾	3		CORE ⁽²⁾	3
	CORE ⁽²⁾	3		CORE ⁽²⁾	3
16			15		

Junior

<i>FALL</i>			<i>SPRING</i>		
Course	Course Title	Credit: Grade	Course	Course Title	Credits: Grade
CHEM	245 Biochemistry	3	CHEM	370 Career Development II	1
CHEM	245L Biochemistry Lab	1	CHEM	xxx ⁽⁶⁾ Advanced Topic/Special Topic	2
PHYS	103 ⁽⁵⁾ Scientific Physics I	4	PHYS	204 ⁽⁵⁾ Scientific Physics II	4
	CORE ⁽³⁾	3		CORE ⁽³⁾	3
	CORE ⁽³⁾	3		CORE ⁽³⁾	3
14			13		

Senior

<i>FALL</i>			<i>SPRING</i>		
Course	Course Title	Credit: Grade	Course	Course Title	Credits: Grade
CHEM	485 Seminar	1	CHEM	xxx ⁽⁶⁾ Advanced Topic/Special Topic	2
CHEM	488 Senior Literature Review	1	CHEM	xxx ⁽⁶⁾ Advanced Topic/Special Topic	2
CHEM	355 Physical Chemistry	3		CORE ⁽⁴⁾	3
CHEM	355L Physical & Inorganic Chemistry Lab	1		CORE ⁽⁴⁾	3
	CORE ⁽⁴⁾	3		CORE ⁽⁴⁾	3
	CORE ⁽⁴⁾	3			13
12					

NOTES:

1. Students must take the First Year Seminar (*DEPT* 193) in their first year, and they are encouraged to take COMM 100, PHIL 101, and ENGL 101 in their first year.
2. Students are encouraged to complete the 2nd year Core courses in their second year.
3. Students are encouraged to complete the 3rd year Core courses in their third year.
4. Students are encouraged to complete the Core Integration Seminar (CIS) (*DEPT* 432) in their fourth year.
5. Students may take the PHYS 101/102 sequence instead of the PHYS 103/204 sequence.
6. Students must complete one Advanced Topic (CHEM 399) course, one Special Topic-Block 1 (CHEM 405-435) course, and one Special Topic-Block 2 (CHEM 455-480) course.