

College of Arts and Sciences 2025-2026 Degree Worksheet

B.S. CHEMISTRY (ACS Approved)

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COLLEGE of ARTS & SCIENCES Language Requirement

B.S. CHEMISTRY: (ACS Approved)

67-69 CREDITS

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

LOWER DIVISION

38 Credits

Course	Course Title	Credits	Grade
CHEM	101 General Chemistry I	3	
CHEM	101L General Chemistry I Lab	1	
CHEM	102 General Chemistry II	3	
CHEM	102L General Chemistry II	1	
CHEM	230 Organic Chemistry I	3	
CHEM	230L Organic Chemistry I Lab	1	
CHEM	231 Organic Chemistry II	3	
CHEM	231L Organic Chemistry II Lab	1	
CHEM	285 Intro to the Chemical Sciences	1	
MATH	157 Calculus-Analytic Geometry I	4	
MATH	258 Calculus-Analytic Geometry II	4	
PHYS	121 Physics I	4	
PHYS	121L Physics I Lab	1	
PHYS	122 Physics II	4	
PHYS	122L Physics II Lab	1	
PHYS	201 Mathematical Methods	3	

UNIVERSITY CORE REQUIREMENTS:

► FUNDAMENTAL CORE COURSES

Year 1: Understanding & Creating

	Credits	Sem/Yr
<i>Writing</i>		
ENGL 101 Writing <i>(fulfills 3 credits Writing Enriched)*</i>	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 <i>(must be above Math 100)</i>	3	
<i>Scientific Inquiry (2cr + 1cr lab)</i>		
BIOL or CHEM or PHYS 104/104L <i>(taken year 1 or 2)</i>	3	

Year 2: Being & Becoming

	Credits	Sem/Yr
<i>Christianity & Catholic Traditions</i>		
RELI <i>(see approved list)**</i>	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 <i>(see approved list)** (fulfills 3cr Global Studies)*</i>	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>

UPPER DIVISION

29-31 Credits

Course	Course Title	Credits	Grade
CHEM	305 Inorganic Chemistry	3	
CHEM	307 Biochemistry I	3	
CHEM	307L Biochemistry I Lab	1	
CHEM	310 Analytical Chemistry	3	
CHEM	310L Analytical Chemistry Lab	1	
CHEM	356 Thermodynamics & Kinetics	3	
CHEM	356L Thermodynamics & Kinetics Lab	1	
CHEM	357 Quantum Chemistry	3	
CHEM	357L Quantum Chemistry Lab	1	
CHEM	358L Advanced Chemistry Lab	2	
CHEM	399 Advanced Topic	2	
CHEM	485 Seminar	1	

One of the following options:

	Credits	Grade
CHEM 488 Senior Literature Review	1	

OR

CHEM 498A Thesis I	1	
CHEM 498B Thesis II	1	

CHEM 498A & 498B are required for ACS approved degree

One Course from CHEM 405-480:

Course	Course Title	Credits	Grade
CHEM		2	

One Elective from the following:

Course	Course Title	Credits	Grade
CHEM	308 Biochemistry II	3	
CHEM	Special Topic from CHEM 405-480	2	
PHYS	300 or above approved Physics Topics	3	

College of Arts and Sciences 2025-2026 Degree Worksheet
B.S. CHEMISTRY (ACS Approved) - SAMPLE Yearly Progression

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67-69 credits required for the Major

Freshman

<i>FALL</i>			
Course	Course Title	Credit	Grade
CHEM	101 General Chemistry	3	
CHEM	101L General Chemistry Lab	1	
MATH	157 Calculus-Analytic Geometry I	4	
	<i>CORE</i>	3	
	<i>CORE</i>	3	
		14	

<i>SPRING</i>			
Course	Course Title	Credits	Grade
CHEM	102 General Chemistry II	3	
CHEM	102L General Chemistry II Lab	1	
MATH	258 Calculus-Analytic Geometry II	4	
PHYS	121 Physics I	4	
PHYS	121L Physics I Lab	1	
	<i>CORE</i>	3	
		16	

Sophomore

<i>FALL</i>			
Course	Course Title	Credit	Grade
CHEM	230 Organic Chemistry I	3	
CHEM	230L Organic Chemistry I Lab	1	
CHEM	285 Introduction to the Chemical Sciences	1	
PHYS	122 Physics II	4	
PHYS	122L Physics II Lab	1	
PHYS	201 Mathematical Methods	3	
	<i>CORE</i>	3	
		16	

<i>SPRING</i>			
Course	Course Title	Credits	Grade
CHEM	231 Organic Chemistry II	3	
CHEM	231L Organic Chemistry II Lab	1	
CHEM	307 Biochemistry I	3	
CHEM	307L Biochemistry I Lab	1	
	<i>CORE</i>	3	
	<i>CORE</i>	3	
	<i>CORE</i>	3	
		17	

Junior

<i>FALL</i>			
Course	Course Title	Credit	Grade
CHEM	310 Analytical Chemistry	3	
CHEM	310L Analytical Chemistry Lab	1	
CHEM	356 Thermodynamics & Kinetics	3	
CHEM	356L Thermodynamics & Kinetics Lab	1	
	<i>CORE</i>	3	
	<i>CORE</i>	3	
		14	

<i>SPRING</i>			
Course	Course Title	Credits	Grade
CHEM	357 Quantum Chemistry	3	
CHEM	357L Quantum Chemistry Lab	1	
CHEM	305 Inorganic Chemistry	3	
CHEM	358L Advanced Chemistry Lab	2	
CHEM	399 Advanced Topic ⁽¹⁾	2	
	<i>CORE</i>	3	
		14	

Senior

<i>FALL</i>			
Course	Course Title	Credit	Grade
CHEM	4xx Special Topic (405-480) ⁽¹⁾	2	
CHEM	485 Seminar	1	
CHEM	498A Thesis I ⁽²⁾	1	
	<i>CORE</i>	3	
	<i>CORE</i>	3	
	<i>CORE</i>	3	
	<i>CORE/Elective</i>	3	
		16	

<i>SPRING</i>			
Course	Course Title	Credits	Grade
CHEM	4xx Special Topic (405-480) ⁽¹⁾	2	
CHEM	498B Thesis II ⁽²⁾	1	
	<i>CORE/Elective</i>	3	
	<i>CORE/Elective</i>	3	
	<i>CORE/Elective</i>	3	
	<i>CORE/Elective</i>	3	
		15	

NOTES:

- Students must complete one Advanced Topic (CHEM 399), one Special Topics course (CHEM 405-480) and one other approved upper-division elective (e.g. CHEM 405-480, CHEM 308 or approved PHYS 3xx/4xx) and these may be taken in any order during the 3rd & 4th years if pre-requisites are met.
- Students can take Senior Literature Review (CHEM 488) instead of CHEM 498A/B for a non-ACS approved B.S. degree. Thesis students must find a senior thesis or literature review faculty advisor by the end of spring junior year and are required to present their thesis work at the spring Departmental poster session to earn the ACS-approved degree.