

College of Arts and Sciences 2026-2027 Degree Worksheet

B.S. CHEMISTRY (ACS Approved)

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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

B.S. CHEMISTRY: (ACS Approved)

67-69 CREDITS

LOWER DIVISION

38 Credits

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	

UPPER DIVISION

29-31 Credits

24 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:

1-2 Credit

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:

2 Credits

CHEM		2	
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One Elective from the following:

2-3 Credits

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

UNIVERSITY CORE REQUIREMENTS:

FUNDAMENTAL CORE COURSES

Year 1: Understanding & Creating

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

Year 2: Being & Becoming

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

Year 3: Caring & Doing

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

Year 4: Imagining the Possible

Core Integration Seminar	Credits Sem/Yr
Dept. 432	3

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

BROADENING COURSES - see approved list**

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

REQUIRED COURSE DESIGNATIONS - see approved list**

▲Writing Enriched	Credits Sem/Yr
	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>

College of Arts and Sciences 2026-2027 Degree Worksheet

B.S. CHEMISTRY (ACS Approved) - **SAMPLE** Yearly Progression

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67-69 credits required for the Major

Freshman

FALL

Course	Course Title	Credit	Grade
CHEM 101	General Chemistry	3	
CHEM 101L	General Chemistry Lab	1	
MATH 157	Calculus-Analytic Geometry I	4	
CORE		3	
CORE		3	

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SPRING

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	
CORE		3	

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Sophomore

FALL

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	
CORE		3	

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SPRING

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	
CORE		3	
CORE		3	
CORE		3	

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Junior

FALL

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	
CORE		3	
CORE		3	

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SPRING

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	
CORE		3	

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Senior

FALL

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

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SPRING

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

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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.