

Degree Worksheet for the College of Arts and Sciences: 2019-2020

B.S. CHEMISTRY (ACS Approved option)

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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

	Credits Sem/Yr
	Credits Sem/Yr

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 <input style="width: 20px;" type="text"/>
<i>Reasoning</i> PHIL 101 Reasoning	3 <input style="width: 20px;" type="text"/>
<i>First Year Seminar</i> Dept. 193	3 <input style="width: 20px;" type="text"/>
<i>Communication & Speech</i> COMM 100 Communication & Speech	3 <input style="width: 20px;" type="text"/>
<i>Math</i> MATH (must be above Math 100)	3 <input style="width: 20px;" type="text"/>
<i>Scientific Inquiry (2cr + 1cr lab)</i> BIOL or CHEM or PHYS 104/104L (taken year 1 or 2)	3 <input style="width: 20px;" type="text"/>

Year 2: Being & Becoming

	Credits Sem/Yr
<i>Christianity & Catholic Traditions</i> RELI (see approved list)**	3 <input style="width: 20px;" type="text"/>
<i>Philosophy of Human Nature</i> PHIL 201 Philosophy of Human Nature	3 <input style="width: 20px;" type="text"/>

Year 3: Caring & Doing

	Credits Sem/Yr
<i>World/Comparative Religion</i> RELI (see approved list)** (fulfills 3cr Global Studies)*	3 <input style="width: 20px;" type="text"/>
<i>Ethics</i> PHIL 301 Ethics or RELI 330 Principles-Christian Morality	3 <input style="width: 20px;" type="text"/>

Year 4: Imagining the Possible

	Credits Sem/Yr
<i>Core Integration Seminar</i> Dept. 432	3 <input style="width: 20px;" type="text"/>

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

► BROADENING COURSES - see approved list**

	Credits Sem/Yr
Social & Behavioral Science	3 <input style="width: 20px;" type="text"/>
Literature	3 <input style="width: 20px;" type="text"/>
History	3 <input style="width: 20px;" type="text"/>
Fine Arts & Design	3 <input style="width: 20px;" type="text"/>

► REQUIRED COURSE DESIGNATIONS - see approved list**

	Credits Sem/Yr
*Writing Enriched	9 total <input style="width: 20px;" type="text"/>
Social Justice	3 total <input style="width: 20px;" type="text"/>
*Global Studies	6 total <input style="width: 20px;" type="text"/>

****for list of approved RELI, Broadening & Designated courses, see :**
<https://my.gonzaga.edu/academics/undergraduate-programs/general-degree-requirements-procedures/university-core>

B.S. CHEMISTRY (ACS):

64-65 CREDITS

LOWER DIVISION

39 Credits

Course	Course Title	Credits	Grade
CHEM 101	General Chemistry	3	<input style="width: 20px;" type="text"/>
CHEM 101L	General Chemistry Lab	1	<input style="width: 20px;" type="text"/>
CHEM 205	Inorganic Chemistry	3	<input style="width: 20px;" type="text"/>
CHEM 230	Organic Chemistry I	4	<input style="width: 20px;" type="text"/>
CHEM 230L	Organic Chemistry I Lab	1	<input style="width: 20px;" type="text"/>
CHEM 231	Organic Chemistry II	3	<input style="width: 20px;" type="text"/>
CHEM 231L	Organic Chemistry II Lab	1	<input style="width: 20px;" type="text"/>
CHEM 245	Biochemistry	3	<input style="width: 20px;" type="text"/>
CHEM 245L	Biochemistry Lab	1	<input style="width: 20px;" type="text"/>
CHEM 270	Career Development I	1	<input style="width: 20px;" type="text"/>
MATH 157	Calculus-Analytic Geometry I	4	<input style="width: 20px;" type="text"/>
MATH 258	Calculus-Analytic Geometry II	4	<input style="width: 20px;" type="text"/>
PHYS 103	Scientific Physics I	4	<input style="width: 20px;" type="text"/>
PHYS 103L	Scientific Physics I Lab	1	<input style="width: 20px;" type="text"/>
PHYS 204	Scientific Physics II	4	<input style="width: 20px;" type="text"/>
PHYS 204L	Scientific Physics II Lab	1	<input style="width: 20px;" type="text"/>

UPPER DIVISION

26 Credits

Course	Course Title	Credits	Grade
CHEM 310	Analytical Chemistry	3	<input style="width: 20px;" type="text"/>
CHEM 310L	Analytical Chemistry Lab	2	<input style="width: 20px;" type="text"/>
CHEM 355	Physical Chemistry	3	<input style="width: 20px;" type="text"/>
CHEM 355L	Physical & Inorganic Chemistry Lab	1	<input style="width: 20px;" type="text"/>
CHEM 370	Career Development II	1	<input style="width: 20px;" type="text"/>
CHEM 385L	Advanced Chemistry Lab	3	<input style="width: 20px;" type="text"/>
CHEM 399	Advanced Topic	2	<input style="width: 20px;" type="text"/>
CHEM 485	Seminar	1	<input style="width: 20px;" type="text"/>

One of the following options:

CHEM 488 Senior Literature Review	1	<input style="width: 20px;" type="text"/>
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OR

CHEM 498A Thesis I	1	<input style="width: 20px;" type="text"/>
CHEM 498B Thesis II	1	<input style="width: 20px;" type="text"/>

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

One Course in CHEM 405-435 (Block 1)

Course	Course Title	Credits	Grade
CHEM		2	<input style="width: 20px;" type="text"/>

One Course in CHEM 455-480 (Block 2)

Course	Course Title	Credits	Grade
CHEM		2	<input style="width: 20px;" type="text"/>

Two Courses in CHEM 405-435 & 455-480 (Elective Block)

Course	Course Title	Credits	Grade
CHEM		2	<input style="width: 20px;" type="text"/>
CHEM		2	<input style="width: 20px;" type="text"/>

College of Arts and Sciences: 2019-2020
B.S. CHEMISTRY (ACS Approved option) - SAMPLE Yearly Progression

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(64-65 credits required for 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	
	CORE ⁽¹⁾	3	
	CORE ⁽¹⁾	3	
	CORE ⁽¹⁾	3	

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<i>SPRING</i>			
Course	Course Title	Credits	Grade
CHEM	230 Organic Chemistry I	4	
CHEM	230L Organic Chemistry I Lab	1	
MATH	258 Calculus-Analytic Geometry II	4	
	CORE ⁽¹⁾	3	
	CORE ⁽¹⁾	3	

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Sophomore

<i>FALL</i>			
Course	Course Title	Credit:	Grade
CHEM	231 Organic Chemistry II	3	
CHEM	231L Organic Chemistry II Lab	1	
CHEM	205 Inorganic Chemistry	3	
PHYS	103 Scientific Physics I	4	
PHYS	103L Scientific Physics I Lab	1	
	CORE ⁽²⁾	3	

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<i>SPRING</i>			
Course	Course Title	Credits	Grade
CHEM	270 Career Development I	1	
CHEM	310 Analytical Chemistry	3	
CHEM	310L Analytical Chemistry Lab	2	
PHYS	204 Scientific Physics II	4	
PHYS	204L Scientific Physics II Lab	1	
	CORE ⁽²⁾	3	
	CORE ⁽²⁾	3	

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Junior

<i>FALL</i>			
Course	Course Title	Credit:	Grade
CHEM	245 Biochemistry	3	
CHEM	245L Biochemistry Lab	1	
CHEM	355 Physical Chemistry	3	
CHEM	355L Physical & Inorganic Chemistry Lab	1	
	CORE ⁽³⁾	3	
	CORE ⁽³⁾	3	

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<i>SPRING</i>			
Course	Course Title	Credits	Grade
CHEM	370 Career Development II	1	
CHEM	385 Advanced Chemistry Lab	3	
CHEM	xxx ⁽⁵⁾ Advanced Topic/Special Topic	2	
	CORE ⁽³⁾	3	
	CORE ⁽³⁾	3	
	CORE ⁽³⁾	3	

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Senior

<i>FALL</i>			
Course	Course Title	Credit:	Grade
CHEM	485 Seminar	1	
CHEM	498A Thesis I	1	
CHEM	xxx ⁽⁵⁾ Advanced Topic/Special Topic	2	
CHEM	xxx ⁽⁵⁾ Advanced Topic/Special Topic	2	
	CORE ⁽⁴⁾	3	
	CORE ⁽⁴⁾	3	
	CORE ⁽⁴⁾	3	

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<i>SPRING</i>			
Course	Course Title	Credits	Grade
CHEM	498B ⁽⁶⁾ Thesis II	1	
CHEM	xxx ⁽⁵⁾ Advanced Topic/Special Topic	2	
CHEM	xxx ⁽⁵⁾ Advanced Topic/Special Topic	2	
	CORE ⁽⁴⁾	3	
	CORE ⁽⁴⁾	3	
	CORE ⁽⁴⁾	3	
	CORE ⁽⁴⁾	3	

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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 (DEPT 492) in their fourth year.
5. 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, as well as two more Special Topic Courses from either Block 1 or Block 2.
6. Students are required to present their thesis work at the departmental poster session.