

College of Arts and Sciences 2025-2026 Degree Worksheet

B.S. BIOLOGY with Concentration in Microbiology, Molecular, and Cellular Biology (MMCB)

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

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

Year 2: Being & Becoming

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

Year 3: Caring & Doing

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

Year 4: Imagining the Possible

	Credits	Sem/Yr
<i>Core Integration Seminar</i>		
Dept. 432	3	<input type="checkbox"/>

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

► BROADENING COURSES - see approved list**

	Credits	Sem/Yr
Social & Behavioral Science	3	<input type="checkbox"/>
Literature	3	<input type="checkbox"/>
History	3	<input type="checkbox"/>
Fine Arts & Design	3	<input type="checkbox"/>

► REQUIRED COURSE DESIGNATIONS - see approved list**

	Credits	Sem/Yr
*Writing Enriched	9 total	<input type="checkbox"/>
Social Justice	3 total	<input type="checkbox"/>
*Global Studies	6 total	<input type="checkbox"/>

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

***BIOL 105/105L meets the Scientific Inquiry requirement of the University Core for Biology Majors & Minors.**

B.S. BIOLOGY-Microbiology, Molecular, 66-67 CREDITS & Cellular Biology Concentration (MMCB)

LOWER DIVISION

48-49 Credits

	Course	Course Title	Credits	Grade
	BIOL 111	Biology Pathways	1	<input type="checkbox"/>
	BIOL 105/105L	Info Flow in Biological Systems + Lab*	4	<input type="checkbox"/>
	BIOL 106	Energy Flow in Biological Systems	3	<input type="checkbox"/>
	BIOL 205/205L	Physiology & Biodiversity + Lab	4	<input type="checkbox"/>
	BIOL 206/206L	Ecology + Lab	4	<input type="checkbox"/>
	BIOL 207/207L	Genetics + Lab	4	<input type="checkbox"/>
	CHEM 101/101L	General Chemistry I + Lab	4	<input type="checkbox"/>
	CHEM 102/102L	General Chemistry II + Lab	4	<input type="checkbox"/>
	CHEM 230/230L	Organic Chemistry I + Lab	4	<input type="checkbox"/>
	CHEM 231/231L	Organic Chemistry II + Lab	4	<input type="checkbox"/>
	CHEM 307/307L	Biochemistry I + Lab	4	<input type="checkbox"/>

Choose one of the following sets of courses + labs: 5 credits

PHYS 111/111L	General Physics I + Lab	5	<input type="checkbox"/>
PHYS 121/121L	Physics I + Lab	5	<input type="checkbox"/>

Choose one of the following Math or Statistics courses: 3-4 credits

MATH 148	Survey of Calculus	3	<input type="checkbox"/>
MATH 157	Calculus-Analytical Geometry I	3	<input type="checkbox"/>
MATH 221	Applied Statistics (Math 148 is a pre-requisite)	3	<input type="checkbox"/>
BIOL 305	Biological Data Analysis	4	<input type="checkbox"/>

UPPER DIVISION

18 Credits

BIOL 399	Advanced Topics	2	<input type="checkbox"/>
BIOL 495	Senior Evaluation	0	<input type="checkbox"/>
BIOL 499	Senior Colloquium	1	<input type="checkbox"/>

Biology Upper Division Electives: 15 Credits

Group A: Choose one from the following courses + labs: 4 credits

BIOL 351/351L	Cell Biology + Lab	4	<input type="checkbox"/>
BIOL 370/370L	Microbiology + Lab	4	<input type="checkbox"/>
BIOL 456/456L	Molecular Biology + Lab	4	<input type="checkbox"/>

Group B: Choose one from the following: 3-4 credits

BIOL 335	Advanced Genetics	3	<input type="checkbox"/>
BIOL 337	Developmental Biology	3	<input type="checkbox"/>
BIOL 351/351L	Cell Biology + Lab	4	<input type="checkbox"/>
BIOL 380	Group B approved Study Abroad	0-6	<input type="checkbox"/>
BIOL 451/451L	Comparative Endocrinology + Lab	4	<input type="checkbox"/>
BIOL 456/456L	Molecular Biology + Lab	4	<input type="checkbox"/>
BIOL 498	Group B Approved Research	4	<input type="checkbox"/>

Group C: Choose one from the following: 3-4 credits

BIOL 331	Parasitology	3	<input type="checkbox"/>
BIOL 370/370L	Microbiology + Lab	4	<input type="checkbox"/>
BIOL 374	Immunology	3	<input type="checkbox"/>
BIOL 375	Virology	3	<input type="checkbox"/>
BIOL 380	Group C approved Study Abroad	4	<input type="checkbox"/>
BIOL 498	Group C Approved Research	4	<input type="checkbox"/>

Choose at least three credits from the following to complete the required 15 credits of Biology Upper Division electives:

	Credits	Grade
BIOL 301-498, incl. listed above, not used above	3-5	<input type="checkbox"/>
CHEM 300 and higher		<input type="checkbox"/>
CPSC 121 and higher		<input type="checkbox"/>
MATH 148 and higher, if not used above		<input type="checkbox"/>
PHYS 112 and higher		<input type="checkbox"/>

ALL courses should be chosen in consultation with a Biology faculty advisor.

*Students must earn C- grade or better in BIOL 105/105L & BIOL 106 to take BIOL 205, 206, or 207. Students must get C- grade or better in BIOL 205/205L, 206/206L, 207/207L & BIOL 399 to take BIOL 499. Credits from BIOL 497 Biology Internship, do not satisfy any requirements for the Biology Major or Minor. Upper division BIOL electives: minimum of 10 credits(BS), 6 credits(BA), 4 credits(Minor) must be taken from GU faculty. Study abroad students take note.