

# Degree Worksheet for the College of Arts and Sciences: 2023-2024

## B.S. BIOLOGY with Concentration in Physiology

### 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

### B.S. BIOLOGY- Physiology Concentration

**63-64 CREDITS**

#### LOWER DIVISION

**46 Credits**

Course	Course Title	Credits	Grade
BIOL 105 & 105L	Info Flow in Biological Systems + Lab**	3	
BIOL 106	Energy Flow in Biological Systems	3	
BIOL 205 & 205L	Physiology & Biodiversity & Lab	4	
BIOL 206 & 206L	Ecology & Lab	4	
BIOL 207 & 207L	Genetics & Lab	4	
CHEM 101 & 101L	General Chemistry & Lab	4	
CHEM 230 & 230L	Organic Chemistry I & Lab	5	

#### Choose one of the following sets of courses + labs:

**5 credits**

PHYS 111 & 111L	General Physics I & Lab	5	
PHYS 121 & 121L	Physics I & Lab	5	

#### Choose one of the following Math or Statistics courses:

**3-4 credits**

MATH 221	Applied Statistics	3	
MATH 321	Statistics for Experimentalist	3	
BIOL 305	Biological Data Analysis	4	

#### UPPER DIVISION

BIOL 399	Advanced Topics	2	
BIOL 495	Senior Evaluation	0	
BIOL 499	Senior Colloquium	1	

#### Biology & Other Science Electives:

**A total of 15 credits of upper-division BIOL electives.**

**15 Credits**

**At least 10 credits must be taken from this list; at least**

**one course must include a lab:**

BIOL 313	Animal Behavior	3	
BIOL 341 & 341L	Human Physiology + Lab	4	
BIOL 351 & 351L	Cell Biology + Lab	4	
BIOL 371 & 371L	Vertebrate Biology + Lab	4	
BIOL 370 & 370L	Microbiology + Lab	4	
BIOL 420	Physiological Ecology	4	
BIOL 441	Animal Physiology	4	
BIOL 441 & 441L	Neurophysiology + Lab	4	
BIOL 451 & 451L	Comparative Endocrinology + Lab	4	
BIOL 498	Approved Research	4	

#### Other Science Electives:

**9 credits**

BIOL	any upper division courses not already counted		
CHEM	any course above 230		
CPSC	101 and higher		
MATH	148 or higher		
PHYS	any course above 111/121		

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

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

Credits from BIOL 497 Biology Internship, do not satisfy any requirements for the Biology Major or Minor.

### 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>**

\*Students must earn C- grade or better in BIOL 105/105L & BIOL 106 to take BIOL 205, 206, or 207. Students must also get C- grade or better in BIOL 205/205L, 206/206L, 207/207L & BIOL 399 to take BIOL 499.

Upper division BIOL electives: minimum of 10 credits(BS), 6 credits(BA), or 4 credits(Minor) must be taken from Gonzaga faculty. Study abroad students take note.