## College of Arts and Sciences 2024-2025 Degree Worksheet **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-forstudents/language-requirement-information

Credits Sem/Yr

## 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 <b>3</b>			
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)**			
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 <b>3</b>			
NOTE: some courses have pre-requisites, check the catalog carefully!			
PROADENING COURSES are assessed list**			

# **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

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

## **B.S. BIOLOGY-**

## **Physiology Concentration**

#### 63-64 CREDITS

9 credits

## 36-37 Credits

LOWE	R DIVISION	36-37 Cre	dits
Course	Course Title	Credit	s <u>3rade</u>
BIOL	105/105L Info Flow in Biological Systems + Lab	o** 4	
BIOL	106 Energy Flow in Biological Systems	3	
BIOL	111 Biology Pathways	1	
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	4	

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 MATH 321 Statistics for Experimentalist BIOL 305 Biological Data Analysis

UPPER DIVISION		27 Cred	27 Credits	
BIOL	399 Advanced Topics	2		
BIOL	495 Senior Evaluation	0		
BIOL	499 Senior Colloquium	1		

#### **Biology Upper Division Electives:**

A minimum of 15 credits of upper-division BIOL electives.

At least 10 credits must be taken from this list and at least

one co	urse must include a lab:	15 Cred	<u>lits</u>
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	420 Physiological Ecology	3	
BIOL	441 Advanced Physiology (+441L 1cr Lab if offered)	3	
BIOL	451/451L Comparative Endocrinology + Lab	4	
BIOL	498 Approved Physiology Research	4	
BIOL	301-498 incl. courses not already counted for cond	*	

Choose enough credits to reach a minimum of 15 credits when combined with the upper-division BIOL electives above:

BIOL 301-498 incl. courses not already counted for conc.\*

\*BIOL 399, 495. 497, 499 do not qualify

## **Additional Science Electives:**

Any upper-division BIOL courses not already counted toward the concentration (BIOL 399, 495, 497, 499 do not qualify)

BIOL	BIOL 301-498, if not used above	
CHEM	102/102L General Chemistry II + Lab	
CHEM	231 and higher	
CPSC	121 and higher	
MATH	any course 148 or higher	
PHYS	any course above 111	

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.

<sup>\*\*</sup>BIOL 105/105L meets the Scientific Inquiry requirement of the University Core for Biology Majors and Minors

<sup>\*</sup>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.