

College of Arts and Sciences 2024-2025 Degree Worksheet

B.S. NEUROSCIENCE

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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

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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>

B.S. NEUROSCIENCE

61 Credits

LOWER DIVISION

38 Credits

Course	Course Title	Credits	Grade
BIOL 105/105L	Info Flow in Biological Systems + Lab	4	
BIOL 106	Energy Flow in Biological Systems	3	
BIOL 207/207L	Genetics + Lab	4	
NEUR 201	Introduction to Neuroscience	3	
CHEM 101/101L	General Chemistry + Lab	4	
CHEM 230/230L	Organic Chemistry I + Lab	4	
PSYC 101	General Psychology	3	

One of the following course and lab combinations:

PHYS 111/111L	General Physics I + Lab	5	
OR			
PHYS 121/121L	Physics I + Lab	5	

One of the following course and lab combinations:

PHYS 112/112L	General Physics II + Lab	5	
OR			
PHYS 122/1122L	Physics II + Lab	5	

One of the following statistics courses:

PSYC 202	Statistics for Psychology	3	
MATH 121	Introductory Statistics	3	
MATH 221	Applied Statistics	3	
HPHY 205	Experimental Design and Statistics	3	

UPPER DIVISION

23 Credits

Course	Course Title	Credits	Grade
NEUR 399	Scientific Communication	2	
NEUR 499	Neuroscience and Society	3	
BIOL 376	Cellular Neurophysiology	3	
HPHY 451	Systems Neuroscience	3	
HPHY 453	Neuroanatomy	3	

Choose at least 9 credits from any of the following courses in any combination from any area:

Cellular and Molecular

BIOL 331	Parasitology	3	
BIOL 335	Advanced Genetics	3	
BIOL 337	Developmental Biology	3	
BIOL 338/338L	Histology + Lab	4	
BIOL 351	Advanced Cell Biology	3	
BIOL 370/370L	Microbiology + Lab	4	
BIOL 374	Immunology	3	
BIOL 375	Virology	3	
BIOL 456/456L	Molecular Biology + Lab	4	

Physiological and Anatomical

BIOL 341/341L	Human Physiology + Lab	4	
BIOL 371/371L	Vertebrate Biology + Lab	4	
HPHY 375/375L	Biomechanics + Lab	4	
HPHY 376/376L	Exercise Physiology + Lab	4	
HPHY 402	Clinical Exercise Physiology	3	
BIOL 441	Advanced Animal Physiology	3	
BIOL 451/451L	Comparative Endocrinology + Lab	4	
HPHY 452	Neuromuscular Control		
HPHY 478	Physiology of Aging		
HPHY 485	Biomedical Engineering		

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Philosophical				
PHIL	404	Philosophy of Science	3	<input type="checkbox"/>
PHIL	406	Philosophy of Mind	3	<input type="checkbox"/>
PHIL	437	Philosophy of Time	3	<input type="checkbox"/>
PHIL	478	Philosophy of Technology	3	<input type="checkbox"/>
Computational				
BIOL	305	Biological Data Analysis	4	<input type="checkbox"/>
PHYS	412	Biophysical Systems and Modeling	3	<input type="checkbox"/>
CPSC	436	Biomedical Informatics and Computing	3	<input type="checkbox"/>
PSYC	450	Advanced Statistics in Psychology	3	<input type="checkbox"/>
CPSC	475	Speech and Natural Language Processing	3	<input type="checkbox"/>
Behavioral				
PSYC	305	Sensation and Perception	3	<input type="checkbox"/>
PSYC	310	Cognition	3	<input type="checkbox"/>
BIOL	313	Animal Behavior	3	<input type="checkbox"/>
PSYC	315	Learning	3	<input type="checkbox"/>
SOCI	354	Sociology of Mental Illness	3	<input type="checkbox"/>
PSYC	364	Abnormal Child Psychology	3	<input type="checkbox"/>
PSYC	390	Psychopathology	3	<input type="checkbox"/>
PSYC	395	Clinical Neuropsychology	3	<input type="checkbox"/>