

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

B.S. PHYSICS with APPLIED PHYSICS CONCENTRATION

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	

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. PHYSICS: with Applied Physics Concentration

64 CREDITS

Physics Disciplinary Base Courses 49 Credits

Lower Level

Course	Course Title	Credits	Grade
PHYS 121/121L	Scientific Physics I + Lab	5	
PHYS 122/122L	Scientific Physics II + Lab	5	
PHYS 180	Physics Skills Seminar	1	
PHYS 201	Mathematical Methods	3	
PHYS 222	Electronics	2	
PHYS 224	Modern Physics	3	
PHYS 280	Physics Pathways Seminar	1	
MATH 157	Calculus & Analytical Geometry I	4	
MATH 258	Calculus & Analytical Geometry II	4	
CPSC 121	Computer Science I	3	

Upper Level

PHYS 321	Classical Mechanics	3	
PHYS 322	Electricity & Magnetism	3	
PHYS 323	Statistical Mechanics	3	
PHYS 324	Quantum Mechanics	3	
PHYS 325	Computational Physics	2	
PHYS 441	Advanced Lab I	2	
PHYS 442	Advanced Lab II	2	

Applied Physics Concentration 15 Credits

CPSC 222	Introduction to Data Science	3	
MATH 321	Statistics for Experimentalists	3	
PHYS 452	Optics	3	
PHYS 453	Solid State Physics	3	
PHYS 456	Biophysical Systems & Modeling	3	

Physics Majors are also encouraged to take:

Course	Course Title	Credits	Grade
MATH 259	Calculus/Analytical Geometry III	4	
MATH 260	Ordinary Differential Equations	3	
MATH 339	Linear Algebra	3	

and additional CPSC (Computer Science) courses.