

College of Arts and Sciences 2024-2025 Degree Worksheet

B.A. PHYSICS

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

	Credits Sem/Yr
<i>Writing</i>	
ENGL 101 Writing (fulfills 3 credits Writing Enriched)*	3
<i>Reasoning</i>	
PHIL 101 Reasoning	3
<i>First Year Seminar</i>	
Dept. 193	3
<i>Communication & Speech</i>	
COMM 100 Communication & Speech	3
<i>Math</i>	
MATH (must be above Math 100)	3
<i>Scientific Inquiry (2cr + 1cr lab)</i>	
BIOL or CHEM or PHYS 104/104L (taken year 1 or 2)	3

Year 2: Being & Becoming

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

Year 3: Caring & Doing

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

Year 4: Imagining the Possible

	Credits Sem/Yr
<i>Core Integration Seminar</i>	
Dept. 432	3

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

► BROADENING COURSES - see approved list**

	Credits Sem/Yr
Social & Behavioral Science	3
Literature	3
History	3
Fine Arts & Design	3

► REQUIRED COURSE DESIGNATIONS - see approved list**

*Writing Enriched	Credits Sem/Yr
	9 total
Social Justice	Credits Sem/Yr
	3 total
*Global Studies	Credits Sem/Yr
	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.A. PHYSICS:

52-53 CREDITS

The B.A. degree in Physics is intended to better allow College of Arts & Sciences students to complete double majors. Students who earn a B.A. in Physics must also be earning a B.A. in another College of Arts & Sciences Dept.

LOWER DIVISION

29 Credits

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

UPPER DIVISION

18 Credits

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 Laboratory I	2	
PHYS 442	Advanced Laboratory II	2	

Two of the following courses:

5-6 Credits

Course	Course Title	Credits	Grade
PHYS 222	Electronics	2	
PHYS 424	Advanced Quantum Mechanics	3	
PHYS 451	Fields, Oscillations, and Relativity	3	
PHYS 452	Optics	3	
PHYS 453	Solid State Physics	3	
PHYS 454	Nuclear & Particle Physics	3	
PHYS 455	Cosmology & Astrophysics	3	
PHYS 456	Biophysics 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.