

# Degree Worksheet for the College of Arts and Sciences: 2019-2020

## B.S. 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

	Credits	Sem/Yr
	3	1

### UNIVERSITY CORE REQUIREMENTS:

#### ► FUNDAMENTAL CORE COURSES

##### Year 1: Understanding & Creating

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

##### Year 2: Being & Becoming

Christianity & Catholic Traditions	Credits	Sem/Yr
RELI (see approved list)**	3	1
Philosophy of Human Nature		
PHIL 201 Philosophy of Human Nature	3	1

##### Year 3: Caring & Doing

World/Comparative Religion	Credits	Sem/Yr
RELI (see approved list)** (fulfills 3cr Global Studies)*	3	1
Ethics		
PHIL 301 Ethics or RELI 330 Principles-Christian Morality	3	1

##### Year 4: Imagining the Possible

Core Integration Seminar	Credits	Sem/Yr
Dept. 432	3	1

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

#### ► BROADENING COURSES - see approved list\*\*

Social & Behavioral Science	Credits	Sem/Yr
	3	1
Literature		
	3	1
History		
	3	1
Fine Arts & Design		
	3	1

#### ► REQUIRED COURSE DESIGNATIONS - see approved list\*\*

*Writing Enriched	Credits Sem/Yr
	<b>9 total</b>
Social Justice	
	<b>3 total</b>
*Global Studies	
	<b>6 total</b>

\*\*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:

54 CREDITS

#### LOWER DIVISION

34 Credits

Course	Course Title	Credits	Grade
PHYS 103	Scientific Physics I	4	1
PHYS 103L	Scientific Physics I Lab	1	1
PHYS 204	Scientific Physics II	4	1
PHYS 204L	Scientific Physics II Lab	1	1
PHYS 205	Modern Physics	3	1
PHYS 208	Computational Physics	2	1
PHYS 210	Introduction to Linear Electronics	2	1
PHYS 217	Modern Physics Lab	2	1
CHEM 101	General Chemistry	3	1
CHEM 101L	General Chemistry Lab	1	1
CPSC 121	Computer Science I	3	1
MATH 157	Calculus & Analytical Geometry I	4	1
MATH 258	Calculus & Analytical Geometry II	4	1

#### UPPER DIVISION

20 Credits

Course	Course Title	Credits	Grade
PHYS 300	Mathematical Methods	3	1
PHYS 301	Intermediate Mechanics	3	1
PHYS 306	Electricity & Magnetism	3	1
PHYS 310	Intermediate Laboratory	2	1
PHYS 464	Introduction to Quantum Physics	3	1

#### Two of the following courses:

6 Credits

Course	Course Title	Credits	Grade
PHYS 307	Optics	3	1
PHYS 402	Advanced Mechanics	3	1
PHYS 407	Electricity & Magnetism II	3	1
PHYS 409	Nuclear & Particle Physics	3	1
PHYS 415	Cosmology & Astrophysics	3	1
PHYS 450	Statistical Physics	3	1

#### Physics Majors are also encouraged to take:

Course	Course Title	Credits	Grade
MATH 259	Calculus/Analytical Geometry III	4	1
MATH 260	Ordinary Differential Equations	3	1
MATH 339	Linear Algebra	3	1

and additional CPSC (Computer Science) courses.