

Degree Worksheet for the College of Arts and Sciences: 2020-2021

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

| | |
|--|----------------|
| | 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 <input type="text"/> |
| <i>Reasoning</i> | |
| PHIL 101 Reasoning | 3 <input type="text"/> |
| <i>First Year Seminar</i> | |
| Dept. 193 | 3 <input type="text"/> |
| <i>Communication & Speech</i> | |
| COMM 100 Communication & Speech | 3 <input type="text"/> |
| <i>Math</i> | |
| MATH (must be above Math 100) | 3 <input type="text"/> |
| <i>Scientific Inquiry (2cr + 1cr lab)</i> | |
| BIOL or CHEM or PHYS 104/104L (taken year 1 or 2) | 3 <input type="text"/> |

Year 2: Being & Becoming

| | Credits Sem/Yr |
|---|------------------------|
| <i>Christianity & Catholic Traditions</i> | |
| RELI (see approved list)** | 3 <input type="text"/> |
| <i>Philosophy of Human Nature</i> | |
| PHIL 201 Philosophy of Human Nature | 3 <input type="text"/> |

Year 3: Caring & Doing

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

Year 4: Imagining the Possible

| | Credits Sem/Yr |
|---------------------------------|------------------------|
| <i>Core Integration Seminar</i> | |
| Dept. 432 | 3 <input type="text"/> |

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

► BROADENING COURSES - see approved list**

| | Credits Sem/Yr |
|-----------------------------|------------------------|
| Social & Behavioral Science | 3 <input type="text"/> |
| Literature | 3 <input type="text"/> |
| History | 3 <input type="text"/> |
| Fine Arts & Design | 3 <input type="text"/> |

► REQUIRED COURSE DESIGNATIONS - see approved list**

| | Credits Sem/Yr |
|-------------------|------------------------------|
| *Writing Enriched | 9 total <input type="text"/> |
| Social Justice | 3 total <input type="text"/> |
| *Global Studies | 6 total <input type="text"/> |

**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:

54 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

34 Credits

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

UPPER DIVISION

20 Credits

| Course | Course Title | Credits | Grade |
|----------|---------------------------------|---------|----------------------|
| PHYS 300 | Mathematical Methods | 3 | <input type="text"/> |
| PHYS 301 | Intermediate Mechanics | 3 | <input type="text"/> |
| PHYS 306 | Electricity & Magnetism | 3 | <input type="text"/> |
| PHYS 310 | Intermediate Laboratory | 2 | <input type="text"/> |
| PHYS 464 | Introduction to Quantum Physics | 3 | <input type="text"/> |

Two of the following courses:

6 Credits

| Course | Course Title | Credits | Grade |
|----------|----------------------------|---------|----------------------|
| PHYS 307 | Optics | 3 | <input type="text"/> |
| PHYS 402 | Advanced Mechanics | 3 | <input type="text"/> |
| PHYS 407 | Electricity & Magnetism II | 3 | <input type="text"/> |
| PHYS 409 | Nuclear & Particle Physics | 3 | <input type="text"/> |
| PHYS 412 | Biophysics | 3 | <input type="text"/> |
| PHYS 415 | Cosmology & Astrophysics | 3 | <input type="text"/> |
| PHYS 450 | Statistical Physics | 3 | <input type="text"/> |

Physics Majors are also encouraged to take:

| Course | Course Title | Credits | Grade |
|----------|----------------------------------|---------|----------------------|
| MATH 259 | Calculus/Analytical Geometry III | 4 | <input type="text"/> |
| MATH 260 | Ordinary Differential Equations | 3 | <input type="text"/> |
| MATH 339 | Linear Algebra | 3 | <input type="text"/> |

and additional CPSC (Computer Science) courses.