

# College of Arts and Sciences 2024-2025 Degree Worksheet

## B.A. MATHEMATICS with STATISTICS 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

|   | 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 &amp; 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 &amp; 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\*\*

|                   | Credits | Sem/Yr |
|-------------------|---------|--------|
| *Writing Enriched |         |        |
| <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.A. MATHEMATICS:

**40 CREDITS**

#### with STATISTICS CONCENTRATION

##### LOWER DIVISION

**12 Credits**

| Course   | Course Title                     | Credits | Grade |
|----------|----------------------------------|---------|-------|
| MATH 157 | Calculus & Analytic Geometry I   | 4       |       |
| MATH 258 | Calculus & Analytic Geometry II  | 4       |       |
| MATH 259 | Calculus & Analytic Geometry III | 4       |       |

##### UPPER DIVISION

**7 Credits**

| Course   | Course Title                | Credits | Grade |
|----------|-----------------------------|---------|-------|
| MATH 301 | Fundamentals of Mathematics | 3       |       |
| MATH 339 | Linear Algebra              | 3       |       |
| MATH 499 | Comprehensive-Math*         | 1       |       |

\* Majors take fall semester of their final year.

##### One of the following two courses:

**3 Credits**

| Course   | Course Title       | Credits | Grade |
|----------|--------------------|---------|-------|
| MATH 413 | Real Analysis I    | 3       |       |
| MATH 437 | Abstract Algebra I | 3       |       |

##### One Mathematics 300-400 level elective:

**3 Credits**

| Course | Course Title | Credits | Grade |
|--------|--------------|---------|-------|
| MATH   |              | 3       |       |

Cannot double count with a required course.

#### STATISTICS CONCENTRATION

**15 Credits**

|                             | Credits | Grade |
|-----------------------------|---------|-------|
| MATH 421 Probability Theory | 3       |       |

##### Select one of the following two courses:

**3 Credits**

|          |                                 |  |  |
|----------|---------------------------------|--|--|
| MATH 321 | Statistics for Experimentalists |  |  |
| MATH 422 | Mathematical Statistics         |  |  |

##### Select one of the following two courses:

**3 Credits**

|          |                            |  |  |
|----------|----------------------------|--|--|
| MATH 425 | Applied Statistical Models |  |  |
| MATH 426 | Experimental Design        |  |  |

##### Two Statistics Electives:

**6 Credits**

|      |  |  |
|------|--|--|
| MATH |  |  |
|      |  |  |

Cannot double-count with courses used elsewhere  
At least one course must be MATH.

**Statistics Electives:** MATH 422, 423, 426, PHYS 323, PSYC 450, ECON 355, 451, 452, CPSC 322, 323, 324 **These courses may have pre-requisites that are not part of this concentration.**

##### MATH Electives:

MATH 335, 432, and 496 cannot be used for MATH electives.

A maximum of three (3) credits from the following courses may be counted toward Math electives: MATH 365 (may be taken for credit only once), MATH 390, 490, 497.