Degree Worksheet for the College of Arts and Sciences: 2022-2023

B.S. 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

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
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
492 — **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. MATHEMATICS: 49 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 — *13 Credits*

MATH 301	Fundamentals of Mathematics	3	
MATH 339	Linear Algebra	3	
MATH 413	Real Analysis I	3	
MATH 437	Abstract Algebra I	3	
MATH 499	Comprehensive-Math*	1	

**Majors take fall semester of their final year*

Select one of the following five (5) courses: — ***3 Credits***

MATH 414	Real Analysis II	
MATH 417	Complex Variables	
MATH 438	Abstract Algebra II	
MATH 457	Number Theory & Cryptography	
MATH 459	Topology	

Select one 300-400 level MATH elective: — ***3 Credits***

(these may also come from the 5 listed above) — Credits Grade

MATH — 3

Cannot double-count with a course used above

Select one 400-level MATH elective: — ***3 Credits***

MATH — 3

STATISTICS CONCENTRATION — 15 Credits

3 Credits

MATH 421 Probability Theory — 3

Select one of the following two courses: — ***3 Credits***

MATH 425	Applied Statistical Models	
MATH 426	Experimental Design	

Select one of the following two courses: — ***3 Credits***

MATH 321	Statistics for Experimentalists	
MATH 422	Mathematical Statistics	

Two Statistics Electives: — ***6 Credits***

MATH

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

Statistics Elective options: *MATH 422, 423, 426, PHYS 450, ECON 355, 451, 452, CPSC 322, 323, 324* **These courses have pre-requisites that may be outside the concentration.**

MATH Electives:
MATH 260 may be used as one 300-400 level elective.
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.