

# Degree Worksheet for the College of Arts and Sciences: 2023-2024

## B.S. APPLIED MATHEMATICS with Actuarial Science 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

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### 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	
Dept. 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
Dept. 432	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. APPLIED MATHEMATICS: 69 CREDITS with Actuarial Science Concentration

#### APPLIED MATHEMATICS

34 Credits

##### LOWER DIVISION

18 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	
MATH 260	Ordinary Differential Equations	3	
CPSC 121	Computer Science I	3	

##### UPPER DIVISION

13 Credits

MATH 301	Fundamentals of Mathematics	3	
MATH 413	Real Analysis I	3	
MATH 422	Mathematical Statistics	3	
MATH 423	Stochastic Processes	3	
MATH 496	Comprehensive-Applied Math	1	

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

3 Credits

MATH 335	Applied Linear Algebra	3	
MATH 339	Linear Algebra	3	

#### ACTUARIAL SCIENCE CONCENTRATION

35 Credits

MATH 421	Probability Theory	3	
MATH 494	Topics in Actuarial Science	1	
ACCT 263	Accounting Analysis	3	
ECON 201	Microeconomics (min grade B-)	3	
ECON 202	Macroeconomics	3	
ECON 301	Intermediate Microeconomics	3	
ECON 352/352L	Money and Banking+Lab	4	
ECON 355	Regression Analysis	3	
ECON 451	Econometrics	3	

#### Applied Math Electives:

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

3 Credits

MATH	400-level elective	3	
ECON	452 Time Series Analysis	3	

##### Select two 300-400 level Math electives:

6 Credits

MATH	3	
MATH	3	

Cannot double-count with a required course.

Cannot use MATH 335, 339, 432, or 499 as MATH electives.

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