Degree Worksheet for the College of Arts and Sciences: 2021-2022
B.S. APPLIED MATHEMATICS - 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

UNIVERSITY CORE REQUIREMENTS:
▶ FUNDAMENTAL CORE COURSES
Year 1: Understanding & Creating

	Credits	Sem/Yr
Writing		
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

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

Year 3: Caring & Doing

	Credits	Sem/Yr
World/Comparative Religion		
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

	Credits	Sem/Yr
Core Integration Seminar		
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	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**
Actuarial Science

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   *16 Credits*

Course	Course Title	Credits	Grade
MATH 301	Fundamentals of Mathematics	3	
MATH 339	Linear Algebra	3	
MATH 413	Real Analysis I	3	
MATH 422	Mathematical Statistics	3	
MATH 423	Stochastic Processes	3	
MATH 496	Comprehensive-Applied Math	1	

ACTUARIAL SCIENCE CONCENTRATION   **35 Credits**

22 Credits

Course	Course Title	Credits	Grade
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	

4 Credits

Course	Course Title	Credits	Grade
MATH 421	Probability Theory	3	
MATH 494	Topics in Actuarial Science	1	

Applied Math Electives: *6 Credits*

		Credits	Grade
MATH	Math 300-400 level electives*	6	

(cannot double-count with another requirement)

MATH 328 Operations Research
MATH 341 Modern Geometry
MATH 351 Combinatorics & Graph Theory
MATH 360-363 Selected Topics
MATH 414 Real Analysis II
MATH 417 Complex Variables
MATH 421 Probability Theory
MATH 437 Abstract Algebra I
MATH 438 Abstract Algebra II
MATH 440 Foundations of Applied Math
MATH 450-453 Selected Topics
MATH 454 Partial Differential Equations
MATH 457 Number Theory & Cryptography
MATH 459 Topology
MATH 462 Nonlinear Systems & Chaos
MATH 498A/498B Thesis I/II

One of the following two options: *3 Credits*

		Credits	Grade
MATH 400	Level Elective*	3	
ECON 452	Time Series Analysis	3	

At least 6 credits of the possible total of 9 credits of Math electives must come from the Applied Math electives list.