

# Degree Guide for the College of Arts and Sciences: 2017-2018

## B.A. MATHEMATICS

### 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 see:

<http://www.gonzaga.edu/Academics/Colleges-and-Schools/College-of-Arts-and-Sciences/Majors-Programs/language-requirement>

	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		
<i>Reasoning</i> PHIL 101 Reasoning	3		
<i>First Year Seminar</i> 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 Principals-Christian Morality	3		

##### Year 4: Imagining the Possible

	Credits Sem/Yr		
Core Integration Seminar 492	3		

**NOTE: some courses have pre-requisites, check the catalogue 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 :

<http://www.gonzaga.edu/Academics/Undergraduate/General-Degree-Requirements-and-Procedures/University-Core/Default.asp>

### B.A. MATHEMATICS:

**31 CREDITS**

#### 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

**19 Credits**

Course	Course Title	Credits	Grade
MATH 301	Fundamentals of Mathematics	3	
MATH 339	Linear Algebra	3	
MATH 499	Senior Comprehensive	1	

#### Any two 400-Level Mathematics courses:

**6 Credits**

Course	Course Title	Credits	Grade
MATH		3	
MATH		3	

#### Mathematics Electives

**6 Credits**

Course	Course Title	Credits	Grade
MATH		3	
MATH		3	

#### **Minimum of 6 credits from the following\*:**

\*One of these courses may be replaced by MATH 260

- MATH 321 Statistics for Experimentalists
- MATH 328 Operations research
- MATH 341 Modern Geometry
- MATH 350 Elementary Numerical Analysis
- MATH 351 Combinatorics & Graph Theory
- MATH 360-363 Selected Topics
- MATH 413 Real Analysis I
- MATH 414 Real Analysis II
- MATH 417 Complex Variables
- MATH 421 Probability Theory
- MATH 422 Mathematical Statistics
- MATH 437 Abstract Algebra I
- MATH 438 Abstract Algebra II
- MATH 450-453 Selected Topics
- MATH 454 Partial Differential Equations
- MATH 457 Number Theory & Cryptography
- MATH 459 Topology
- MATH 490 Directed Reading
- MATH 497 Mathematics Internship