

# Degree Worksheet for the College of Arts and Sciences: 2020-2021

## 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: <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
<i>Writing</i>		
ENGL 101 Writing (fulfills 3 credits Writing Enriched)*	3	<input type="checkbox"/>
<i>Reasoning</i>		
PHIL 101 Reasoning	3	<input type="checkbox"/>
<i>First Year Seminar</i>		
Dept. 193	3	<input type="checkbox"/>
<i>Communication &amp; Speech</i>		
COMM 100 Communication & Speech	3	<input type="checkbox"/>
<i>Math</i>		
MATH (must be above Math 100)	3	<input type="checkbox"/>
<i>Scientific Inquiry (2cr + 1cr lab)</i>		
BIOL or CHEM or PHYS 104/104L (taken year 1 or 2)	3	<input type="checkbox"/>

##### Year 2: Being & Becoming

	Credits	Sem/Yr
<i>Christianity &amp; Catholic Traditions</i>		
RELI (see approved list)**	3	<input type="checkbox"/>
<i>Philosophy of Human Nature</i>		
PHIL 201 Philosophy of Human Nature	3	<input type="checkbox"/>

##### Year 3: Caring & Doing

	Credits	Sem/Yr
<i>World/Comparative Religion</i>		
RELI (see approved list)** (fulfills 3cr Global Studies)*	3	<input type="checkbox"/>
<i>Ethics</i>		
PHIL 301 Ethics or RELI 330 Principles-Christian Morality	3	<input type="checkbox"/>

##### Year 4: Imagining the Possible

	Credits	Sem/Yr
<i>Core Integration Seminar</i>		
Dept. 432	3	<input type="checkbox"/>

**NOTE: some courses have pre-requisites, check the catalog carefully!**

#### ▶ BROADENING COURSES - see approved list\*\*

	Credits	Sem/Yr
Social & Behavioral Science	3	<input type="checkbox"/>
Literature	3	<input type="checkbox"/>
History	3	<input type="checkbox"/>
Fine Arts & Design	3	<input type="checkbox"/>

#### ▶ REQUIRED COURSE DESIGNATIONS - see approved list\*\*

	Credits	Sem/Yr
*Writing Enriched	9 total	<input type="checkbox"/>
Social Justice	3 total	<input type="checkbox"/>
*Global Studies	6 total	<input type="checkbox"/>

\*\*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:

**31 CREDITS**

#### LOWER DIVISION

		Credits	Grade
		<b>12 Credits</b>	
Course	Course Title		
MATH 157	Calculus & Analytic Geometry I	4	<input type="checkbox"/>
MATH 258	Calculus & Analytic Geometry II	4	<input type="checkbox"/>
MATH 259	Calculus & Analytic Geometry III	4	<input type="checkbox"/>

#### UPPER DIVISION

		Credits	Grade
		<b>7 Credits</b>	
Course	Course Title		
MATH 301	Fundamentals of Mathematics	3	<input type="checkbox"/>
MATH 339	Linear Algebra	3	<input type="checkbox"/>
MATH 499*	Comprehensive-Math	1	<input type="checkbox"/>

\*Majors take fall semester of their final year.

#### One of the following two courses:

		Credits	Grade
		<b>3 Credits</b>	
Course	Course Title		
MATH 413	Real Analysis I	3	<input type="checkbox"/>
MATH 437	Abstract Algebra I	3	<input type="checkbox"/>

#### Any 400-Level Mathematics course:

		Credits	Grade
		<b>3 Credits</b>	
	(does NOT include MATH 432)		
Course	Course Title		
MATH		3	<input type="checkbox"/>

#### Mathematics Electives:

		Credits	Grade
		<b>6 Credits</b>	
Course	Course Title		
MATH		3	<input type="checkbox"/>
MATH		3	<input type="checkbox"/>

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

\* One of these courses may be replaced by MATH 260  
Cannot double count with a course used above.

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