

Degree Worksheet for the College of Arts and Sciences: 2019-2020

B.S. APPLIED MATHEMATICS - Economics 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
<i>Writing</i>		
ENGL 101 Writing (fulfills 3 credits Writing Enriched)*	3	
<i>Reasoning</i>		
PHIL 101 Reasoning	3	
<i>First Year Seminar</i>		
Dept. 193	3	
<i>Communication & Speech</i>		
COMM 100 Communication & Speech	3	
<i>Math</i>		
MATH (must be above Math 100)	3	
<i>Scientific Inquiry (2cr + 1cr lab)</i>		
BIOL or CHEM or PHYS 104/104L (taken year 1 or 2)	3	

Year 2: Being & Becoming

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

Year 3: Caring & Doing

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

Year 4: Imagining the Possible

	Credits	Sem/Yr
<i>Core Integration Seminar</i>		
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	9	
Social Justice		
3 total	3	
*Global Studies		
6 total	6	

****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: Economics Concentration 61 CREDITS

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

	MATH 301	Fundamentals of Mathematics	3	
	MATH 339	Linear Algebra	3	
	MATH 350	Elementary Numerical Analysis	3	
	MATH 413	Real Analysis I	3	
	MATH 422	Mathematical Statistics	3	
	MATH 499	Comprehensive	1	

ECONOMICS CONCENTRATION 27 Credits

	Credits	
MATH 421 Probability Theory	3	

One of the following two courses: 3 Credits

MATH 454	Partial Differential Equations	3	
MATH 462	Nonlinear Systems & Chaos	3	

Mathematics 300-400 Level Electives: 6 Credits

MATH	3	
MATH	3	

A minimum of 3 credits must be from the MATH electives list; 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 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 462	Nonlinear Systems & Chaos		
MATH 498A/498B	Thesis I/II		

9 Credits

ECON 201	Microeconomics	3	
ECON 202	Macroeconomics	3	
ECON 303	Game Theory-Economic Applications	3	

One of the following two courses: 3 credits

ECON 301	Intermediate Microeconomics	3	
ECON 302	Intermediate Macroeconomics	3	

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Economics 300-400 Level Elective:	3 Credits
ECON	3 <input type="text"/>

ECON 301 Intermediate Microeconomics

ECON 311 Global Economic Issues

ECON 320 Economics of Sports

ECON 321 International Economics

ECON 322/SOSJ 320 Work, Wages, and Inequality

ECON 324 Economics of Environmental Protection

ECON 325 Public Finance

ECON 330 Antitrust Policy & Regulation

ECON 333 Health Economics

ECON 334 Behavioral Economics

ECON 351 Managerial Economics

ECON 352 Money & Banking

ECON 404 Economic Integrated European Community

ECON 451 Econometrics

(ECON 321 and 451 are the recommended elective choices)

Remember to check for pre-requisites when selecting electives.