

College of Arts and Sciences 2025-2026 Degree Worksheet

B.S. APPLIED MATHEMATICS with 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 <i>(fulfills 3 credits Writing Enriched)*</i>	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 & Speech</i> COMM 100 Communication & Speech	3 <input type="checkbox"/>
<i>Math</i> MATH <i>(must be above Math 100)</i>	3 <input type="checkbox"/>
<i>Scientific Inquiry (2cr + 1cr lab)</i> BIOL or CHEM or PHYS 104/104L <i>(taken year 1 or 2)</i>	3 <input type="checkbox"/>

Year 2: Being & Becoming

	Credits Sem/Yr
<i>Christianity & Catholic Traditions</i> RELI <i>(see approved list)**</i>	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 <i>(see approved list)** (fulfills 3cr Global Studies)*</i>	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.S. APPLIED MATHEMATICS: 64-65 CREDITS with Economics Concentration

APPLIED MATHEMATICS

34 Credits

LOWER DIVISION

		Credits
		18 Credits
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

		Credits
		10 Credits
MATH	301 Fundamentals of Mathematics	3
MATH	350 Numerical Methods	3
MATH	413 Real Analysis I	3
MATH	496 Comprehensive - Applied Math	1

(Majors take MATH 496 fall semester of their final year)

Select one of the following two courses: 3 Credits

MATH	321 Statistics for Experimentalists	3
MATH	422 Mathematical Statistics	3

If MATH 422 is chosen, then one MATH 400 level elective may be replaced by a MATH 300 level elective.

Select one of the following two courses: 3 Credits

MATH	335 Applied Linear Algebra	3
MATH	339 Linear Algebra	3

ECONOMICS CONCENTRATION

30-31 Credits

		3 credits
MATH	421 Probability Theory	3
		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	351 Managerial Economics	3

**ECON 301 pre-requisite ECON 201, requires a minimum grade of B-*

Select two of the following five courses: 6 Credits

MATH	423 Stochastic Processes	3
MATH	425 Applied Statistical Models	3
MATH	426 Experimental Design	3
MATH	440 Foundations of Applied Math	3
MATH	454 Partial Differential Equations	3

CONTINUED ON Page 2

College of Arts and Sciences 2025-2026 Degree Worksheet
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Page 2 of 2

Options for ECON 300-400 Level Elective:

- 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 352/352L Money & Banking + Lab
 - ECON 355 Regression Analysis
 - *ECON 451 Econometrics
 - *ECON 452 Time Series Analysis
- (*recommended elective choices)*

CONTINUED FROM Page 1

One ECON 300-400 level elective:	3-4 credits
ECON	3

One 300-400 level Math elective:	3 Credits
MATH	3

One 400-level Math elective:	3 Credits
MATH	3

Check for pre-requisites when selecting electives.

MATH 300-level and 400-level Electives:

Cannot double-count electives with another requirement.

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.