

College of Arts and Sciences 2025-2026 Degree Worksheet
B.S. APPLIED MATHEMATICS
with CHEMISTRY and STATISTICS DOUBLE 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

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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 <input style="width: 20px;" type="text"/>
<i>Reasoning</i> PHIL 101 Reasoning	3 <input style="width: 20px;" type="text"/>
<i>First Year Seminar</i> Dept. 193	3 <input style="width: 20px;" type="text"/>
<i>Communication & Speech</i> COMM 100 Communication & Speech	3 <input style="width: 20px;" type="text"/>
<i>Math</i> MATH (must be above Math 100)	3 <input style="width: 20px;" type="text"/>
<i>Scientific Inquiry (2cr + 1cr lab)</i> BIOL or CHEM or PHYS 104/104L (taken year 1 or 2)	3 <input style="width: 20px;" type="text"/>

Year 2: Being & Becoming

	Credits Sem/Yr
<i>Christianity & Catholic Traditions</i> RELI (see approved list)**	3 <input style="width: 20px;" type="text"/>
<i>Philosophy of Human Nature</i> PHIL 201 Philosophy of Human Nature	3 <input style="width: 20px;" type="text"/>

Year 3: Caring & Doing

	Credits Sem/Yr
<i>World/Comparative Religion</i> RELI (see approved list)** (fulfills 3cr Global Studies)*	3 <input style="width: 20px;" type="text"/>
<i>Ethics</i> PHIL 301 Ethics or RELI 330 Principles-Christian Morality	3 <input style="width: 20px;" type="text"/>

Year 4: Imagining the Possible

	Credits Sem/Yr
<i>Core Integration Seminar</i> Dept. 432	3 <input style="width: 20px;" type="text"/>

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

► BROADENING COURSES - see approved list**

	Credits Sem/Yr
Social & Behavioral Science	3 <input style="width: 20px;" type="text"/>
Literature	3 <input style="width: 20px;" type="text"/>
History	3 <input style="width: 20px;" type="text"/>
Fine Arts & Design	3 <input style="width: 20px;" type="text"/>

► REQUIRED COURSE DESIGNATIONS - see approved list**

	Credits Sem/Yr
*Writing Enriched	9 total <input style="width: 20px;" type="text"/>
Social Justice	3 total <input style="width: 20px;" type="text"/>
*Global Studies	6 total <input style="width: 20px;" type="text"/>

****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: 76 CREDITS
with CHEMISTRY & STATISTICS DOUBLE CONCENTRATION

APPLIED MATHEMATICS 34 Credits

LOWER DIVISION 18 Credits

	Course Course Title	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 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

One of the following two courses: 3 Credits

MATH 335	Applied Linear Algebra	3
MATH 339	Linear Algebra	3

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.

CHEMISTRY & STATISTICS DOUBLE CONCENTRATION 42 Credits

MATH 421	Probability Theory	3
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Select one of the following two courses: 3 Credits

MATH 425	Applied Statistical Models	3
MATH 426	Experimental Design	3

24 Credits

CHEM 101/101L	General Chemistry+Lab	4
CHEM 205	Inorganic Chemistry	3
CHEM 230/230L	Organic Chemistry I+Lab	5
CHEM 310/310L	Analytic Chemistry+Lab	5
CHEM 355	Physical Chemistry	3
PHYS 121	Physics I	4

One of the following three courses: 3 Credits

MATH 440	Foundations of Applied Math	3
MATH 454	Partial Differential Equations	3
MATH 462	Nonlinear Systems & Chaos	3

Select one 300-400 level Math elective: 3 Credits

MATH	3
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Cannot double-count with another requirement.

Select two Statistics electives: 6 Credits

MATH	3
	3

*Cannot double-count with a course used elsewhere.
 At least one course must be MATH.*

Statistics Elective options: MATH 422, 423, 426, PHYS 323, ECON 355, 451, 452, CPSC 322, 323, 324, PSYC 450 **These courses have pre-requisites that may be outside the concentration.**

*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.*