

# APPLIED MATHEMATICS & STATISTICS (B.S.) - RESIDENT

**Important:** This degree plan is effective for those starting this degree program in fall 2022 through summer 2023. This degree plan will remain in effect for students who do not break enrollment or who do not change degree programs, concentrations, or cognates.

## General Education/Foundational Skills Requirements

Code	Title	Hours
<b>Communication &amp; Information Literacy</b> <sup>1</sup>		
ENGL 101	Composition and Rhetoric	3
INQR 101	Inquiry	1
Communications Elective		3
Information Literacy Elective		3
Information Literacy Elective		3
<b>Technological Solutions &amp; Quantitative Reasoning</b> <sup>1</sup>		
UNIV 101	Foundational Skills	1
Math Elective	MATH 114 or higher	3
Technology Competency <sup>2</sup>		0-3
<b>Critical Thinking</b> <sup>1</sup>		
RLGN 105	Introduction to Biblical Worldview <sup>3</sup>	2
RSCH 201	Research	3
Critical Thinking Elective		3
<b>Civic &amp; Global Engagement</b> <sup>1</sup>		
EVAN 101	Evangelism and the Christian Life <sup>3</sup>	2
Cultural Studies Elective		3
<b>Social &amp; Scientific Inquiry</b> <sup>1</sup>		
Natural Science Elective		3
Social Science Elective		3
<b>Christianity &amp; Contexts</b> <sup>1</sup>		
BIBL 105	Old Testament Survey	2
BIBL 110	New Testament Survey	2
THEO 201	Theology Survey I <sup>3</sup>	2
THEO 202	Theology Survey II <sup>3</sup>	2
<b>Total Hours</b>		<b>44-47</b>

<sup>1</sup> Refer to the list of approved general education electives before enrolling in foundational skill requirements

<sup>2</sup> All students must pass the Computer Assessment OR complete applicable INFT course

<sup>3</sup> Students transferring in 45 or more UG credit hours will have the requirements of RLGN 105 Introduction to Biblical Worldview (2 c.h.) and EVAN 101 Evangelism and the Christian Life (2 c.h.) waived; Students transferring in 60 or more UG credit hours will also have the requirements of THEO 201 Theology Survey I (2 c.h.) and THEO 202 Theology Survey II (2 c.h.) waived

## Major Requirements

Code	Title	Hours
<b>Major Foundational Courses</b>		
CSIS 110	Introduction to Computer Science <sup>1</sup>	3
CSIS 111	Introduction to Programming Using C++ <sup>1</sup>	3
ENGR 270	Technical Communication <sup>1</sup>	3
MATH 131	Calculus and Analytic Geometry I <sup>1</sup>	4
PHYS 231	University Physics I <sup>1</sup>	4
<b>Total Hours</b>		<b>17</b>

<sup>1</sup> Course may fulfill select general education requirements

Code	Title	Hours
<b>Major Core</b>		
MATH 132	Calculus and Analytic Geometry II	4
MATH 133	Calculus with Mathematica Lab	1
MATH 200	Introduction to Mathematical Reasoning	3
MATH 221	Applied Linear Algebra	3
MATH 231	Calculus and Analytical Geometry III	4
MATH 302	Introduction to Experimental Design in Statistics	3
MATH 311	Probability and Statistics I	3
MATH 321	Linear Algebra	3
MATH 352	Numerical Analysis	3
MATH 402	Linear Regression	3
MATH 411	Probability and Statistics II	3
MATH 450	Mathematics Capstone Seminar	2
MATH Elective <sup>1</sup>		3
MATH Elective <sup>2</sup>		3
<b>Total Hours</b>		<b>41</b>

<sup>1</sup> Choose one of the following courses: MATH 421 Elementary Abstract Algebra I (3 c.h.) or MATH 431 Real Analysis (3 c.h.)

<sup>2</sup> Choose one of the following courses: MATH 301 Methods of Operations Research (3 c.h.), MATH 304 Financial Mathematics (3 c.h.), MATH 334 Differential Equations (3 c.h.), or MATH 350 Discrete Mathematics (3 c.h.)

Code	Title	Hours
<b>Free Electives</b>		
Choose 15-35 credit hours of Free Electives <sup>1</sup>		15-35
<b>Total Hours</b>		<b>15-35</b>

<sup>1</sup> May need 4 hours of upper-level electives

*All applicable prerequisites must be met*

## Graduation Requirements

- 120 Total hours
- 2.0 Overall grade point average
- 30 Hours must be upper-level courses (300-400 level)
- **Grade of 'C'** Minimum required for all upper-level courses in the major
- 25% Of major taken through Liberty University
- 30 Hours must be completed through Liberty University

- **Grad App** Submission of Degree Completion Application must be completed within the last semester of a student's anticipated graduation date
- **CSEER** All requirements must be satisfied before a degree will be awarded