

# APPLIED STATISTICS (B.S.) - ONLINE

**Important:** This degree plan is effective for those starting this degree program in fall 2024 through summer 2025. 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
	Communications Elective	3
	Information Literacy Elective	3
	Information Literacy Elective	3
<b>Technological Solutions &amp; Quantitative Reasoning</b> <sup>1</sup>		
UNIV 104	Instructional Technology for Successful Online Learning	0-3
	Math Elective MATH 114 or higher	3
<b>Critical Thinking</b> <sup>1</sup>		
RLGN 104	Christian Life and Biblical Worldview <sup>2</sup>	4
	Critical Thinking Elective	3
<b>Civic &amp; Global Engagement</b> <sup>1</sup>		
	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 104	Survey of Old and New Testament	4
THEO 104	Introduction to Theology Survey <sup>2</sup>	4
<b>Total Hours</b>		<b>39-42</b>

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

<sup>2</sup> Students transferring in 45 or more UG credit hours will have the requirement of RLGN 104 waived; Students transferring in 60 or more UG credit hours will also have the requirement of THEO 104 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
MATH 131	Calculus and Analytic Geometry I <sup>1</sup>	4
<b>Total Hours</b>		<b>10</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

Code	Title	Hours
MATH 410	Matrix and Linear Algebra	3
MATH 430	Multivariable Calculus	3
STAT 200	Introduction to Statistical Computing	3
STAT 211	Introduction to Statistical Analysis	3
STAT 300	Introduction to Experimental Design	3
STAT 412	Advanced Statistical Methods	3
STAT 420	Regression and Forecasting I	3
STAT 421	Regression and Forecasting II	3
STAT 441	Probability	3
STAT 445	Exploratory Data Analysis	3
STAT 491	Capstone: Case Studies in Data Science	3

**Total Hours** **37**

Code	Title	Hours
<b>Free Electives</b>		
	Choose 31-41 credit hours of free electives	31-41
<b>Total Hours</b>		<b>31-41</b>

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 major foundational courses and 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.

## Course Sequence

Course	Title	Hours
<b>First Year</b>		
<b>First Semester</b>		
BIBL 104	Survey of Old and New Testament	4
ENGL 101	Composition and Rhetoric	3
UNIV 104	Instructional Technology for Successful Online Learning	0-3
	Information Literacy Elective (CSIS 110) <sup>1</sup>	3
	Math Elective (MATH 131) <sup>1</sup>	4
<b>Hours</b>		<b>14-17</b>
<b>Second Semester</b>		
RLGN 104	Christian Life and Biblical Worldview	4
	Communications Elective <sup>1</sup>	3
	Information Literacy Elective <sup>1</sup>	3
	Social Science Elective <sup>1</sup>	3
MATH 132	Calculus and Analytic Geometry II	4
<b>Hours</b>		<b>17</b>
<b>Second Year</b>		
<b>First Semester</b>		
CSIS 111	Introduction to Programming Using C++	3

Course	Title	Hours
Critical Thinking Elective <sup>1</sup>		3
MATH 430	Multivariable Calculus	3
STAT 211	Introduction to Statistical Analysis	3
Elective <sup>1</sup>		3
<b>Hours</b>		<b>15</b>
<b>Second Semester</b>		
THEO 104	Introduction to Theology Survey	4
Cultural Studies Elective <sup>1</sup>		3
Natural Science Elective <sup>1</sup>		3
STAT 200	Introduction to Statistical Computing	3
Elective		3
<b>Hours</b>		<b>16</b>
<b>Third Year</b>		
<b>First Semester</b>		
MATH 410	Matrix and Linear Algebra	3
STAT 300	Introduction to Experimental Design	3
STAT 420	Regression and Forecasting I	3
Elective		3
Elective		3
<b>Hours</b>		<b>15</b>
<b>Second Semester</b>		
MATH 460	Mathematical Modeling and Simulation	3
STAT 412	Advanced Statistical Methods	3
STAT 421	Regression and Forecasting II	3
Elective <sup>2</sup>		3
Elective		3
<b>Hours</b>		<b>15</b>
<b>Fourth Year</b>		
<b>First Semester</b>		
STAT 441	Probability	3
STAT 445	Exploratory Data Analysis	3
Elective		3
Elective		3
Elective		1
<b>Hours</b>		<b>13</b>
<b>Second Semester</b>		
STAT 491	Capstone: Case Studies in Data Science	3
Elective		3
Elective		3
Elective		3
Elective		3
<b>Hours</b>		<b>15</b>
<b>Total Hours</b>		<b>120-123</b>

<sup>1</sup> Refer to the list of approved general education electives at [www.liberty.edu/gened](http://www.liberty.edu/gened) before enrolling in foundational skills requirements

<sup>2</sup> May need up to 3 hours of 300-400 level electives to fulfill upper-level requirement