Statistics, B.S.

The Department of Mathematics is pleased to offer a B.S. degree in Statistics. Statisticians assist in the collection and analysis of data thus providing decision makers information on which to base decisions. Knowledge of statistics and data handling helps students in almost every discipline. There are many opportunities in the job market for students with a degree in Statistics, and the program is ideal as preparation for a graduate degree in Statistics in any major university. The degree offers a wide variety of applied and theoretical courses in statistics, including statistical computing using both SAS and R programming.

Matriculation Requirements

1. Completion of MATH 1210 Calculus I QL and MATH 1220 Calculus II (or equivalent) with an overall GPA of 2.5 or better
2. Student must meet with the math department advisor and declare an intent to major in statistics.

Program Requirements

Code	Title	Credit Hours
Total Credit Hours		**120**
General Education Requirements		**38 Credits**
ENGL 1010	Introduction to Academic Writing CC	3
or ENGH 1005	Literacies and Composition Across Contexts CC	
ENGL 2010	Intermediate Academic Writing CC	3
MATH 1210	Calculus I QL	4
or MATH 121H	Calculus I QL	
Complete one of the following:		3
HIST 2700 & HIST 2710	US History to 1877 AS and US History since 1877 AS (6)	
HIST 1700	American Civilization AS (3)	
HIST 1740	US Economic History AS (3)	
POLS 1000	American Heritage AS (3)	
POLS 1100	American National Government AS (3)	
Complete the following:		
PHIL 2050	Ethics and Values IH	3
HLTH 1100	Personal Health and Wellness TE	2
or EXSC 1097	Fitness for Life TE	
Distribution Courses:		
Biology		3
PHYS 2210	Physics for Scientists and Engineers I PP (co-requisite lab required)	4
PHYS 2215	Physics for Scientists and Engineers I Lab	1
One other Biology or Physical Science Distribution		3
Humanities Distribution		3
Fine Arts Distribution		3
Social/Behavioral Science		3
Discipline Core Requirements		**54 Credits**
CS 1400	Fundamentals of Programming	3
CS 1410	Object Oriented Programming	3
MATH 1220	Calculus II	4
or MATH 122H	Calculus II	
MATH 2210	Calculus III	4
or MATH 221H	Calculus III	
MATH 2270	Linear Algebra	3
STAT 2050	Introduction to Statistical Methods	4
STAT 4000	Applied Regression and Time Series WE	3

STAT 4100	Design of Experiment	3
STAT 4400	Multivariate Analysis WE	3
STAT 4710	Mathematical Statistics-Probability and Statistics	3
STAT 4720	Mathematical Statistics-Statistical Inference	3
Complete three of the following:		9
STAT 4200	Survey Sampling (3)	
STAT 4300	Stochastic Processes (3)	
STAT 4500	Nonparametric Statistics (3)	
STAT 4600	Statistical Process Control (3)	
Complete 9 credits of upper level MATH or STAT courses		9
Elective Requirements		**28 Credits**
Complete 9 credits of upper division electives [1]		9
Complete 24 credits of upper or lower division electives [1]		19

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Elective courses may NOT include MATH 3100, MATH 3200, MATH 3010, MATH 3030, MATH 4030, or MATH 4040.

Graduation Requirements

1. Completion of a minimum of 120 semester credits with at least 40 credit hours in upper-division courses.
2. Overall grade point average of 2.0 (C) or above, a minimum GPA of 2.4 in all MATH and STAT courses listed above, with no grade lower than a "C" in all listed MATH and STAT courses (substitutions may be granted for some elective courses).
3. Residency hours-- minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Complete an exit survey administered by the Mathematics Department Advisor.
6. Successful completion of at least one Global/Intercultural course.

Graduation Plan

This graduation plan is a sample plan and is intended to be a guide. Your specific plan may differ based on your Math and English placement and/or transfer credits applied. You are encouraged to meet with an advisor and set up an individualized graduation plan in Wolverine Track (http://www.uvu.edu/wolverinetrack/).

First Year		
Semester 1		**Credit Hours**
MATH 1210 or MATH 121H	Calculus I QL or Calculus I QL	4
STAT 2050	Introduction to Statistical Methods	4
Humanities GE		3
ENGL 1010 or ENGH 1005	Introduction to Academic Writing CC or Literacies and Composition Across Contexts CC	3
	Credit Hours	**14**
Semester 2		
MATH 1220 or MATH 122H	Calculus II or Calculus II	4
PHYS 2210	Physics for Scientists and Engineers I PP	4
PHYS 2215	Physics for Scientists and Engineers I Lab	1
STAT 2060	Introduction to Statistical Computing	1
Elective		3
Elective		3
	Credit Hours	**16**
Second Year		
Semester 3		
MATH 2210 or MATH 221H	Calculus III or Calculus III	4
ENGL 2010	Intermediate Academic Writing CC	3
PHIL 205G	Ethics and Values IH GI	3
Elective		3
Elective		3
	Credit Hours	**16**

Semester 4		
MATH 2270	Linear Algebra	3
History GE		3
Biology GE		3
Elective		3
Upper Division Elective		3
	Credit Hours	**15**
Third Year		
Semester 5		
STAT 4710	Mathematical Statistics-Probability and Statistics	3
MATH/STAT Elective		3
MATH/STAT Elective		3
Fine Arts GE		3
Elective		3
	Credit Hours	**15**
Semester 6		
STAT 4000	Applied Regression and Time Series WE	3
STAT 4720	Mathematical Statistics-Statistical Inference	3
MATH/STAT Elective		3
Social/Behavioral GE		3
HLTH 1100 or EXSC 1097	Personal Health and Wellness TE or Fitness for Life TE	2
	Credit Hours	**14**
Fourth Year		
Semester 7		
STAT 4100	Design of Experiment	3
MATH/STAT Elective		3
MATH/STAT Elective		3
Additional Science GE		3
Elective		3
	Credit Hours	**15**
Semester 8		
STAT 4400	Multivariate Analysis WE	3
MATH/STAT Elective		3
Upper Division Elective		3
Upper Division Elective		3
Elective		3
	Credit Hours	**15**
	Total Credit Hours	**120**

Program Learning Outcomes

1. Demonstrate depth and breadth of understanding of statistics in core and elective areas through careful analysis.
2. Apply statistical reasoning and analysis in content specific (scientific) areas.
3. Communicate results of statistical analyses to a wide audience.
4. Use modern statistical software to support statistical analyses and promote understanding.