STATISTICS, CERTIFICATE IN (POST-BACCALAUREATE UNDERGRADUATE CERTIFICATE)

The Certificate in Statistics is open to students who have received bachelor's degrees in other areas. The primary goal of the program is to allow students with undergraduate majors in science, engineering and the social sciences an opportunity to acquire the formal training in statistics that is currently in demand in industry and government. Some students also may find the program a useful way to prepare for graduate study in statistics.

To be admitted to the program, a student must complete a baccalaureate degree. Application materials and further information may be obtained by calling (804) 828-0001 or TDD (804) 828-0100, or by writing to the following address: Virginia Commonwealth University, Department of Statistical Sciences and Operations Research, Post-baccalaureate Certificate in Statistics, P.O. Box 843083, Richmond, VA 23284-3083.

The certificate program in statistics requires completion of the mathematics and statistics courses listed below. A maximum of 15 credits toward certification may be transferred from course work completed before or after receiving a bachelor's degree. At least 18 approved credits must be from STAT courses at the 300 level or higher and must be taken at VCU. No more than six of these 18 credits can be from courses taken before admission to the certificate program. The student must achieve a minimum GPA (on courses taken at VCU) of 2.5 with no grade below C. All requirements for the certificate must be completed within five years of admission to the program.

The following courses are required (right column contains credit hours for VCU courses):

Course	Title	Hours
Required courses		
MATH 200	Calculus with Analytic Geometry I	4
MATH 201	Calculus with Analytic Geometry II	4
MATH 307	Multivariate Calculus	4
STAT 210	Basic Practice of Statistics	3
or STAT 212	Concepts of Statistics	
STAT 305	Intermediate Statistics	3-4
or STAT 314	Applications of Statistics	
STAT 309	Introduction to Probability Theory	3
STAT 310	Introduction to Statistical Inference	3
STAT 321	Introduction to Statistical Computing for Data Science	3
Electives		
Choose two from the following:		6
STAT 403	Introduction to Stochastic Processes	
STAT 421	Statistical Computing for Machine Learning and Artificial Intelligence	
STAT 423	Nonparametric Statistics	
STAT 425	Multivariate Statistics	
STAT 435	Industrial Statistics	
STAT 443	Regression	
STAT 447	Introduction to Statistical Data Science	
STAT 475	Time Series	
Total Hours		**33-34**

The minimum number of credit hours required for this certificate is 33.

Students accepted to the program will have access to the program coordinator and undergraduate advisers to best determine a plan of study. Statistics courses taught in other units of the university (for example, SCMA 301 and SCMA 302) may be credited toward the certificate with the permission of the program coordinator.