M.S. IN APPLIED STATISTICS

Curriculum

Code	Title	Credits
Required		
STA 503	Introduction to R	1
STA 505	Mathematical Statistics I	3-4
or STA 504	Mathematical Statistics I with Calculus Review	
STA 506	Mathematical Statistics II	3
STA 507	Introduction to Categorical Data Analysis	3
STA 511	Intro Stat Computing & Data Management	3
STA 512	Principles of Experimental Analysis	4
STA 513	Intermediate Linear Models	4
STA 514	Modern Experimental Design	3
Electives		
Select 9 credits from the following list of electives:		9
STA 531	Topics In Applied Statistics	
STA 532	Survival Analysis	
STA 533	Longitudinal Data Analysis	
STA 534	Time Series	
STA 535	Multivariate Data Analysis	
STA 536	Data Mining	
STA 537	Advanced Statistical Programming Using SAS	
STA 538	Statistical Programming Using R	
STA 539	Applied Bayesian Methods	
STA 540	Statistical Consulting	
STA 541	Categorical Data Analysis II	
STA 542	Statistical Methods for Observational Studies	
STA 543	Statistical Methods in Business and Finance	
STA 544	Applied Marketing Analytics	
STA 545	Statistical Design and Analysis of Clinical Trials	
STA 546	Foundations of Bioinformatics	
STA 551	Foundations of Data Science	
STA 552	Applied Statistical Machine Learning	
STA 553	Data Visualization	
STA 601	Internship In Applied Statistics	
STA 609	Thesis I	
STA 610	Thesis II	
Total Minimum Credits Required		**33**

Sample Course Plan

To track their individual degree progress, students are advised to access their Degree Audit via RamPortal and consult their Graduate Coordinator. For more information, visit the Degree Audit FAQ webpage (https://www.wcupa.edu/academicEnterpriseSystems/student-system-modernization/degree-audit-faqs.aspx).

The following is a sample suggested course sequence for this program; course offerings and availability are not guaranteed. Students should consult their academic advisor with any questions.

Non-Thesis Option

Course	Title	Credits
Year One		
Semester One		
STA 503	Introduction to R	1
STA 505 or STA 504	Mathematical Statistics I or Mathematical Statistics I with Calculus Review	3-4
STA 511	Intro Stat Computing & Data Management	3
	Credits	**7-8**
Semester Two		
STA 506	Mathematical Statistics II	3
STA 512	Principles of Experimental Analysis	4
	Credits	**7**
Summer		
STA 601	Internship In Applied Statistics (Optional)	3
Elective (Optional) [1]		3
	Credits	**6**
Year Two		
Semester Three		
STA 507	Introduction to Categorical Data Analysis	3
STA 513	Intermediate Linear Models	4
	Credits	**7**
Semester Four		
STA 514	Modern Experimental Design	3
Elective (Optional)		3
	Credits	**6**
	Total Credits	**33-34**

[1] Can take more than one elective (any STA course numbered STA 531 or above) each summer.

Thesis Option

Course	Title	Credits
Year One		
Semester One		
STA 503	Introduction to R	1
STA 505 or STA 504	Mathematical Statistics I or Mathematical Statistics I with Calculus Review	3-4
STA 511	Intro Stat Computing & Data Management	3
	Credits	**7-8**
Semester Two		
STA 506	Mathematical Statistics II	3
STA 512	Principles of Experimental Analysis	4
	Credits	**7**
Summer		
STA 601	Internship In Applied Statistics (Optional)	3
	Credits	**3**
Year Two		
Semester Three		
STA 507	Introduction to Categorical Data Analysis	3
STA 513	Intermediate Linear Models	4

STA 609	Thesis I	3
	Credits	**10**
Semester Four		
STA 514	Modern Experimental Design	3
STA 610	Thesis II	3
	Credits	**6**
	Total Credits	**33-34**