STATISTICS-BA OR BS

THIS IS A **GENERAL** CURRICULUM GUIDE AND IS NOT APPLICABLE TO EVERY STUDENT. IT IS IMPORTANT TO MEET WITH YOUR ADVISOR.

THIS GUIDE IS FOR STUDENTS WHO ARE STARTING IN MTH 110

	Year	One	
MTH 110 Algebra	4	MTH 124 Precalculus: Functions and Models	5
Gen Ed or WRT 098 (self-placement) ⁴	3/4	Prerequisite: MTH 110 or proficiency through math	
Gen Ed or Language (if BA)	3/4	placement	
Gen Ed	3	SEE NOTE BELOW REGARDING OPTIONS FOR THIS	
Gen Ed	3	COURSE	
		STA 215 Introductory Applied Statistics	
		Prerequisite: MTH 110 or equivalent	3
		Gen Ed or Language (if BA)	
		WRT 150 Strategies in Writing ⁴	3/4
	10.16	-	4
Total	13-16	Total	15-16*
Year Two			
MTH 201 Calculus I	4	MTH 202 Calculus II (prerequisite MTH 201)	4
Prerequisites: MTH 122 and MTH 123; MTH 124 or proficiency		CIS 161 Computational Science (prerequisite MTH 201)	3/4
through math placement		OR CIS 160 Programming with Visual Basic	
STA 216 Intermediate Applied Statistics	3	OR CIS 162 Computer Science I	
Prerequisite: STA 215 or STA 312	2/4	Prerequisite: MTH 110	_
Gen Ed or Language (if BA)	3/4	Gen Ed	3
Gen Ed	3	Gen Ed	3
¹ Elective	3	¹ Elective	3
Total	16	Total	16
Year Three			
⁶ STA 311 Introduction to Survey Sampling (Prereq: STA 216)	3	⁶ STA 311 Introduction to Survey Sampling (Prereq: STA 216)	3
OR		OR	
⁶ STA 315 Design of Experiments (Prereq: STA 216 or STA 314)		⁶ STA 315 Design of Experiments (Prereq: STA 216 or STA	
OR		314)	
⁶ STA 321 Applied Regression (Prereq: STA 216)		OR	
² STA Elective	3	⁶ STA 321 Applied Regression (Prereq: STA 216)	3
¹ Elective	3	MTH 227 Linear Algebra I	
Gen Ed	3	Prerequisite: MTH 202	3
Issue	3	¹ Elective	3
		Gen Ed	3
		Issue	
Total	15	Total	15
		Four	
STA 412 Mathematical Statistics I	4	STA 419 Statistics Project (SWS) ⁵ (Prerequisite: STA 216)	3
Prerequisites: STA 215 or STA 312, and MTH 202		STA 415 Mathematical Statistics II (Capstone)	4
² STA Elective	3	Prerequisites: STA 412 and MTH 227	
³ STA Application Course	3	³ STA Application Course	3
¹ Elective	3	¹Elective	3
¹ Elective	3	¹ Elective	3
Total	16*	Total	16*

^{*} The block tuition rate is for 12-15 credits. You will pay additional tuition for any credits over 15.

MTH 124 is designed for calculus-bound students as a replacement for MTH 122 & 123. While students can still fulfill the MTH 201 prerequisite by taking MTH 122 & 123, MTH 124 is strongly recommended.

¹ Elective refers to any course to help you earn the required 120 credits to graduate.

² Students must complete two statistic elective courses. See reverse side for elective options.

³ Each major in statistics must select an area of application consisting of at least six credits from outside the statistics department. Students MUST meet with their statistics faculty advisor to develop specific plans for their application cognates. Students are encouraged to meet with their advisor as soon as their major in statistics is declared.

⁴Students who self-place into WRT 098 should take this course in the fall semester and then take WRT 150 in the winter semester of the first year. Students who self-place into WRT 150 should take this course in the winter semester of the first year. A grade of C or higher is required to fulfill the WRT 150 requirement.

⁵Students must complete a total of two courses with an SWS attribute. One SWS course should be outside the major.

⁶Students must select two courses from the following: STA 311 Introduction to Survey Sampling, STA 315 Design of Experiments and STA 321 Applied Regression. If students choose to take all three courses, one will count as one of the two Statistics Electives in the major.

Bachelor of Arts/Bachelor of Science Degree Requirements

Statistics students can pursue a Bachelor of Arts or Bachelor of Science degree. Students who wish to obtain a BA must fulfill 3rd semester proficiency in a foreign language (201 level). The BS requirements are incorporated into the major requirements and include CIS 162, MTH 201, and MTH 202.

Declaring the Statistics Major:

- 1. Log into myBanner from the GVSU homepage
- 2. Once logged in, select "Student," "Student Records," and then "Change Major"
- 3. Click on the "Change Major 1/Program" box
- 4. Click on the down arrow in the box next to "New Major 1/Program"
- 5. From here scroll down and choose "Statistics-BA OR BS" depending on your degree.
- 6. Click "Submit" and then click "Change to New Program"

General Education Overlap

General Education Categories fulfilled by the Statistics Major:

Mathematical Sciences: MTH 122 or MTH 123 or MTH 124 or MTH 201 or STA 215

Statistics Elective Courses

Choose TWO of the following courses

STA 301 Questionnaire Design and Execution (3)

Prerequisite: STA 215 or STA 312 STA 310 Introduction to Biostatistics (3)

Prerequisite: STA 216

STA 314 Statistical Quality Methods (3)
Prerequisite: STA 215 or EGR 103

STA 317 Nonparametric Statistical Analysis (3)

Prerequisite: STA 216

STA 318 Statistical Computing (3)

Prerequisite: STA 215

STA 416 Multivariate Data Analysis (3)

Prerequisite: STA 216

STA 418 Statistical Computing & Graphics w/R (3) Prerequisite: STA 215 or STA 220 or STA 312

AND STA 216 or CIS 162 or CIS 261 STA 421 Bayesian Data Analysis (3)

Prerequisite: STA 216

Application Cognates: For a list of the approved application cognates for the Statistics major, please visit the Statistics website: http://www.gvsu.edu/stat/undergraduate-programs-35.htm