# STATISTICS-BA OR BS WITH ACTUARIAL SCIENCES EMPHASIS

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 122 College Algebra	3
Gen Ed or WRT 098 (self-placement)⁴	3/4	Prerequisite: MTH 110 or assignment through Grand Valley	
Gen Ed or Language (if BA)	3/4	math placement exam	
Gen Ed	3	MTH 123 Trigonometry	3
Gen Ed	3	Prerequisite: MTH 122 or concurrent enrollment or	
Och Eu		assignment through Grand Valley math placement exam	
		STA 215 Introductory Applied Statistics	3
		Prerequisite: MTH 110 or equivalent	
		Gen Ed or Language (if BA)	3/4
		WRT 150 Strategies in Writing <sup>4</sup>	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 or proficiency through		CIS 161 Computational Science (prerequisite MTH 201)	3/4
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		Prerequisite: MTH 110	
Gen Ed or Language (if BA)	3/4	Application Cognate – see page 2 for requirements	3
Application Cognate – see page 2 for requirements	3	Gen Ed	3
<sup>1</sup> Elective	3	<sup>1</sup> Elective	3
Total	16	Total	16
	Year	Three	
STA 321 Applied Regression (Prereq: STA 216)	3	STA 311 Introduction to Survey Sampling (Prereq: STA 216)	3
STA 318 Statistical Computing (Prereq: STA 215)		Application Cognate – see page 2 for requirements	3
OR		Application Cognate – see page 2 for requirements	3
STA 418 Statistical Computing w/R		Gen Ed	3
Prereq: STA 215 or STA 220 or STA 312 AND STA 216 or CIS		Issue	3
162 or CIS 261	3		
MTH 227 Linear Algebra I	3		
Gen Ed	3		
Issue	3		
Total	15	Total	15
	Year	Four	•
STA 412 Mathematical Statistics I	4	STA 419 Statistics Project (SWS) <sup>3</sup>	3
Prerequisites: STA 215 or STA 312, and MTH 202		Prerequisite: STA 216	4
Application Cognate – see page 2 for requirements	3	STA 415 Mathematical Statistics II (Capstone)	
Application Cognate – see page 2 for requirements	3	Prerequisites: STA 412 and MTH 227	3
<sup>1</sup> Elective	3	STA 425 Actuarial Probability and Statistics	3
	3	Prerequisite: STA 412	3
		<sup>1</sup> Elective	
Total	16*	Total	16*

<sup>\*</sup> The block tuition rate is for 12-15 credits. You will pay additional tuition for any credits over 15.

Online at: <a href="http://www.gvsu.edu/clasadvising">http://www.gvsu.edu/clasadvising</a>

<sup>&</sup>lt;sup>1</sup> Elective refers to any course to help you earn the required 120 credits to graduate.

<sup>&</sup>lt;sup>2</sup> Students 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.

<sup>&</sup>lt;sup>3</sup>Students must complete a total of two courses with an SWS attribute. One SWS course should be outside 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 3<sup>rd</sup> 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 201 or STA 215

### **Application Cognates**

# All Students Must Complete 15 – 18 Credit Hours

ACC 212 – Principles of Financial Accounting (3)

FIN 320 – Managerial Finance (3)

Prerequisite: ACC 212 and MTH 110 or 122 or 201

FIN 321 – Investments (3)

Prerequisite: FIN 320 and STA 215

FIN 331 – Risk and Insurance (3)

Prerequisite: Junior Standing

## **Choose one Economics Option from:**

ECO 200 – Business Economics (3)

Prerequisite: MTH 110, 122 or 201 and sophomore standing

## **OR Both**

ECO 210 – Macroeconomics (3)

Prerequisite: MTH 110, 122 or 201 and sophomore standing

#### **AND**

ECO 211 – Microeconomics (3)

Prerequisite: MTH 110, 122 or 201 and sophomore standing