

# Mathematics, Statistics Concentration, B.A.

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## Degree Requirements

A Bachelor of Arts degree in Mathematics with a Concentration in Statistics consists of a minimum of 34 hours of Mathematics (MATH) and Statistics (STAT) courses, one programming course in Computer Science (ITSC), and 18 hours of approved related coursework in an area outside of the department or an approved University minor from outside the department.

### **General Education Courses (25-26 credit hours)**

For details on required courses, refer to the General Education Program. Total hours to satisfy General Education Requirements may vary as some general education requirements may be double-counted in the major with departmental approval. Please see your advisor for information.

### **Foreign Language (0-8 credit hours)**

Students are required to demonstrate proficiency in the language of their choice through the 1202 level. For details on demonstrating proficiency refer to the College of Science Foreign Language Requirement in the Undergraduate Catalog.

### **Core Courses (19 credit hours)**

ITSC 1212: Introduction to Computer Science  
MATH 1241: Calculus I  
MATH 1242: Calculus II  
MATH 2164: Matrices and Linear Algebra  
MATH 2241: Calculus III  
MATH 2242: Calculus IV  
MATH 2688: Mathematics Awareness Seminar  
STAT 3122: Probability and Statistics I  
STAT 3123: Probability and Statistics II  
OR instead of 3122/3123, you may take  
STAT 2122: Intro to Probability and Statistics  
STAT 2223: Elements of Statistics II

### **Concentration Courses (15 credit hours)**

STAT 3110: Applied Regression  
And three from:  
STAT 3140: Design of Experiments  
STAT 3150: Time Series Analysis  
STAT 3160: Applied Multivariate Analysis  
STAT 3180: Predictive Analytics  
STAT 4123: Applied Statistics  
STAT 4124: Applied Statistics II



**Restricted Related Elective Courses  
(18 credit hours)**

Courses that count towards this requirement must have a discipline prefix other than MATH, STAT, or OPRS. A minor or second major satisfies this requirement.

**Unrestricted Electives (25-39 credit hours)**

As needed to complete 120 credit hours.

**Capstone Project (1-6 credit hours)**

The 1 credit hour seminar  
**MATH 3689:** Mathematics Project Seminar  
or the 6 credit hours sequence  
**MATH 3790:** Junior Honors Seminar  
**MATH 3791:** Senior Honors Tutorial

**Other Important Requirements:**

Minimum 120 credit hours (all courses)

Minimum overall GPA of 2.0 (all courses)

Minimum major GPA of 2.0 (degree courses)



# B.A. in Mathematics with Statistics Concentration

Name: \_\_\_\_\_ Minor or Related Work: \_\_\_\_\_

Core Courses	Semester/Year	Grade
ITSC 1212+L- Introduction to Computer ScienceI		
MATH 1241- Calculus I		
MATH 1242- Calculus II		
MATH 2164- Matrices and Linear Algebra		
MATH 2241- Calculus III		
MATH 2242- Calculus IV		
MATH 2688- Mathematics Awareness Seminar		
*STAT 2122- Intro to Probability and Statistics		
*STAT 2223- Elements of Statistics II		
MATH 3689- Senior project (or honors MATH 3790/3791)		

\*STAT 2122 and STAT 2223 may be replaced by STAT/MATH 3122 and MATH/STAT 3123 or by STAT 3128 and MATH/STAT 3123

Concentration Courses	Semester/Year	Grade
STAT 3110- Applied Regression		
**		
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\*\*Select three from STAT 3140, 3150, 3160, 3180, 4116, 4123, 4124.

**Minor/Related Work: 18 Hours**


**Check DegreeWorks for General Education and College's Foreign Language Requirements. A minimum of 120 credits are required for graduation.**

# Academic Plan of Study

## B.A. in Mathematics, Concentration in Statistics

Name:

ID:

Freshman Year					
I			II		
Course ID	Course Name	Grade	Course ID	Course Name	Grade
MATH 1241	Calculus I		MATH 1242	Calculus II	
WRDS 1103/1104	Writing and Inquiry in Academic Contexts		ITSC 1212	Introduction to Computer Science	
XXXX	Theme Course		XXXX	Theme Course	
XXXX	Natural Science		XXXX	Natural Science with Lab	
FORL 1101/1201	Foreign Language or elective		FORL 1101/1201	Foreign Language or elective	

Sophomore Year					
I			II		
Course ID	Course Name	Grade	Course ID	Course Name	Grade
MATH 2241	Calculus III		MATH 2242	Calculus IV	
MATH 2164	Matrices and Linear Algebra		STAT 2122*	Intro to Probability and Statistics	
MATH 2688	Math Awareness Seminar		XXXX	Theme Course	
XXXX	Theme Course		XXXX	Related work or Minor	
CTCM 2530	Critical Thinking and Communication		XXXX	Elective or as needed	
XXXX	Related work or Minor				

Junior Year					
I			II		
Course ID	Course Name	Grade	Course ID	Course Name	Grade
STAT 3110	Applied Regression		MATH 3 or 4xxx	Upper-level Math elective	
STAT 2223*	Elements of Statistics II		MATH 3 or 4xxx	Upper-level Math elective	
XXXX	Related work or Minor		XXXX	Related work or Minor	
XXXX	Elective or as needed		XXXX	Elective or as needed	
XXXX	Elective or as needed		XXXX	Elective or as needed	

Senior Year					
I			II		
Course ID	Course Name	Grade	Course ID	Course Name	Grade
MATH 3689	Math Project Seminar		MATH 3 or 4xxx	Upper-level Math elective	
MATH 3 or 4xxx	Upper-level Math elective		XXXX	Related work or Minor	
XXXX	Related work or Minor		XXXX	Elective or as needed	
XXXX	Elective or as needed		XXXX	Elective or as needed	
XXXX	Elective or as needed				

### Color Legend

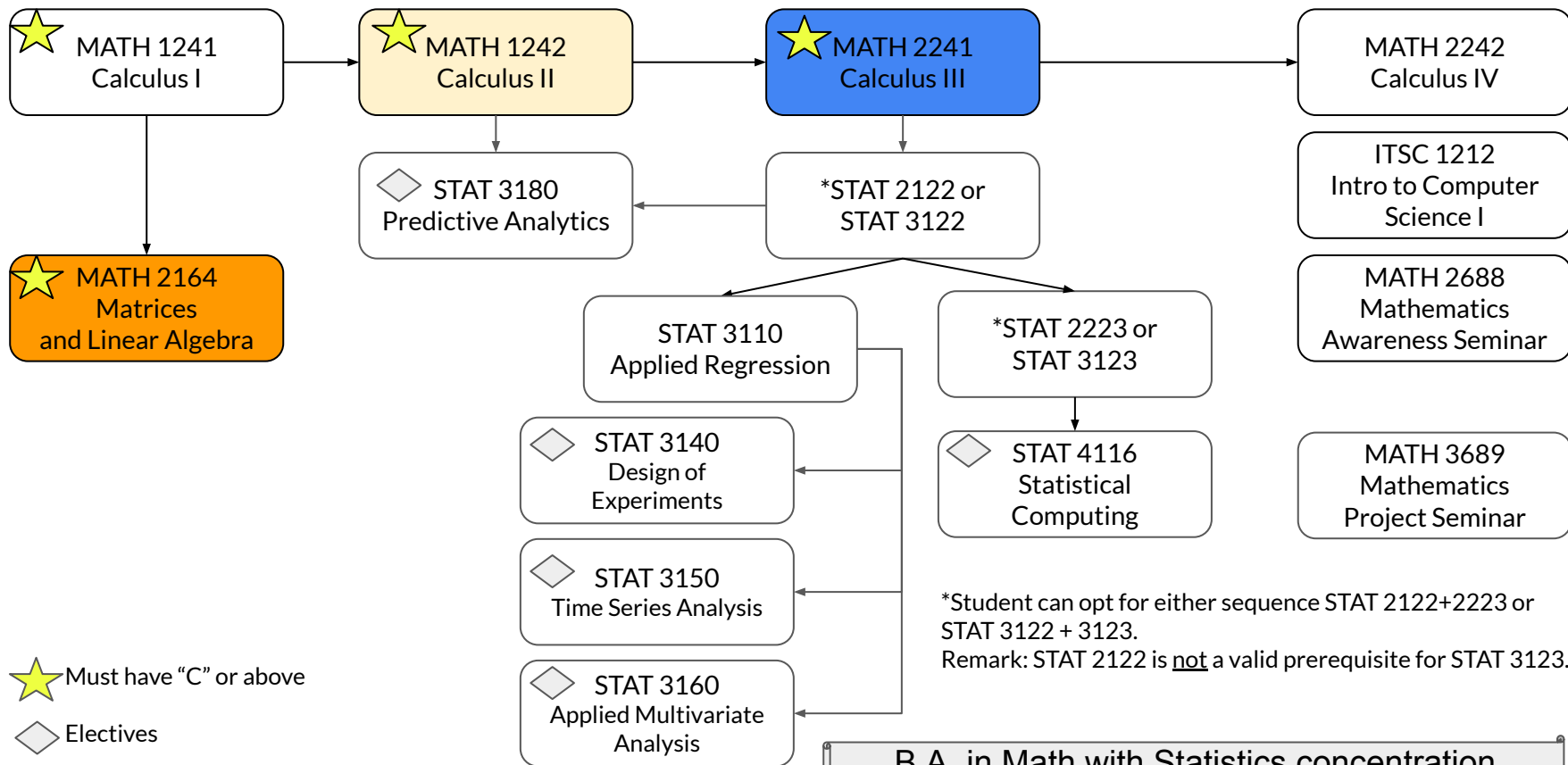
	Related work or Minor
	Restricted Technical Elective
	General Education

MATH 3 or 4xxx Upper-level Math elective

Select from STAT 3140, 3150, 3160, 3180, 4116, 4123, 4124

\*STAT 2122 and 2223 may be replaced by  
STAT 3122 and 3123

B.A. in Math with Statistics concentration  
core and statistics elective courses



B.A. in Math with Statistics concentration