Applied Statistical Analysis - Chemical Analysis

Major Requirements

Lower Division Requirements	Pre-Req	Units	Note
CIS268 Computer Programming Languages	-	3	Spring only
MAT245 Analytical Geometry & Calculus I	MAT135 or 145	4	
MAT255 Analytical Geometry & Calculus II	MAT245	4	
STA144 Introduction to Statistics	-	3	
STA205 Applied Linear Regression	STA144	3	Spring only (even years)
STA210 Statistical Computing I	CIS268 & STA144	3	Fall only (odd years)
STA211 Statistical Computing II	STA210, MAT255 & 303	3	Spring only (spring years)

Upper Division Requirements	Pre-Req	Units	Note
MAT303 Linear Algebra w/ App to Diff Equations	MAT245	3	Fall only
MAT343 Multivariable Calculus	MAT255	4	
MAT353 Probability & Statistics	MAT245	3	Fall only (even years)
STA303 Research & Experimental Design	STA144	3	Fall only (odd years)
STA305 Sampling & Survey Methodology	-	3	Fall only (even years)
STA310 Mathematical Statistics I	-	3	Fall only (even years)
STA311 Mathematical Statistics II	STA310, MAT303 & 343	3	Spring only (odd years)
STA499 Capstone	Dept. Chair consent	3	Spring only

Concentration Requirements	Pre-Req	Units	Note
CHE115 General Chemistry I w/Lab	CHE102 or HS Chem	4	
CHE125 General Chemistry II w/Lab	CHE115	4	Spring only
CHE230 Introduction to Molecular Modeling	CHE115	1	Spring only
CHE321 Analytical Chemistry w/Lab	CHE125	4	Fall only
Choose 2 of the following courses:			•
CHE370 Environmental Chemistry w/Lab	CHE125 & BIO146 or 148	4	Spring only (odd years)
CHE415 Physical Chemistry I	CHE125 & MAT145 or 245	3	Fall only
CHE470 Instrumental Analysis	CHE321	4	Spring only (even years)

Total Major Units: 68 - 69

Upper Division Major Units: 41 - 42

General Education Requirements

Competency Requirements	Units	Note
English Competency	3	ENG113 required
Math Competency	3	STA499* will fulfill
Technology	3	CIS268 will fulfill
Foreign Language I	3	
Foreign Language II	3	

If you are exempt from a Competency Requirement, add those units to Additional Elective Units Needed.

Core Curriculum	Units	Note
Behavioral Science	6	
English Composition	3	ENG123 required
English or Film	3	
Communication Arts	3	
Art or Music	3	
Philosophy	3	
US History	3	
Non-US History	3	
Political Science	3	
Lab Science	4	CHE321 will fulfill
Science or Kinesiology	4	CHE370 or 470 will fulfill
Christian Studies	9	

*Course is interdisciplinary

Upper Division Requirements	12	CHE321 & CHE370/470 will fulfill 8 units
Multicultural Requirements	9	ENG123 will fulfill 3 units
Interdisciplinary Requirements	9	STA499 will fulfill 3 units

Total Required GE units: 48

Upper Division Required GE Units: 4

Additional Elective Units Needed: 7 - 8

Upper Division Elective Units Needed: 0

About This Plan

- This plan is not a contract. Curriculum can be subject to change.
- · Highlighted courses and fields are major specific.
- Descriptions for all courses can be found in the CBU catalog at insidecbu.calbaptist.edu.
- To graduate, all students need 124 total units, 39 of which must be upper division.
- Courses numbered in the 300's and 400's are upper division.
- GST100, ENG103, and MAT095 count as elective units.

Contact Information

Department of Natural & Mathematical Sciences						
(951) 343 - 4380	James 454					
Dr. Lisa Hernandez, Chair	lihernandez@calbaptist.edu					
Debbie Spala, Department Secretary	dspala@calbaptist.edu					
Dr. Linn Carothers, Faculty Advisor	lcarothers@calbaptist.edu					
Office of Academic Advising	Yeager B150					
(951) 343 - 4567	advising@calbaptist.edu					

		Freshman Year	•				Sophomore Year	r	
Fall Semester		Spring Semester		Summer Semester	Fall Semester		Spring Semester		Summer Semester
MAT245 Analytical Geometry & Calculus I STA144 Introduction to Statistics ENG113 Composition GST100 Focus General Education Course	4313	MAT255 Analytical Geometry & Calculus II STA205 or CIS268 (depending on year) ENG123 Intermediate Composition General Education Course General Education Course	3 3 3		CHE115 General Chemistry I w/Lab MAT303 Linear Algebra w/ App to Diff Equations MAT353 Probability & Statistics General Education Course General Education Course	4333	CHE125 General Chemistry II w/Lab CHE230 Introduction to Molecular Modeling CIS268 or STA205 (depending on year) Upper Division General Education Course General Education Course	4 1 3 3	Summer Semester
Total Units:	14	Total Units:	16	Total Units:	Total Units:	16	Elective Total Units:	15	Total Units:
	-	Junior Year			n no		Senior Year		
Fall Semester	-	Spring Semester	J	Summer Semester	Fall Semester		Spring Semester		Summer Semester
Fall Semester MAT343 Multivariable Calculus	4		4	Summer Semester	Fall Semester CHE321 Analytical Chemistry w/Lab	4		4	Summer Semester
MAT343 Multivariable Calculus STA210 or STA310 (depending on year)	4 3	Spring Semester Concentration Course STA211 or STA311 (depending on year)	4 3	Summer Semester	CHE321 Analytical Chemistry w/Lab STA305 or STA303 (depending on year)	4 3	Spring Semester	4 3	Summer Semester
MAT343 Multivariable Calculus STA210 or STA310		Spring Semester Concentration Course STA211 or STA311		Summer Semester	CHE321 Analytical Chemistry w/Lab STA305 or STA303		Spring Semester Concentration Course STA311 or STA211		Summer Semester
MAT343 Multivariable Calculus STA210 or STA310 (depending on year) STA303 or STA305	3	Spring Semester Concentration Course STA211 or STA311 (depending on year) Upper Division General	3	Summer Semester	CHE321 Analytical Chemistry w/Lab STA305 or STA303 (depending on year) STA310 or STA210	3	Spring Semester Concentration Course STA311 or STA211 (depending on year)	3	Summer Semester
MAT343 Multivariable Calculus STA210 or STA310 (depending on year) STA303 or STA305 (depending on year)	3	Spring Semester Concentration Course STA211 or STA311 (depending on year) Upper Division General Education Course	3	Summer Semester	CHE321 Analytical Chemistry w/Lab STA305 or STA303 (depending on year) STA310 or STA210 (depenidng on year)	3	Spring Semester Concentration Course STA311 or STA211 (depending on year) STA499 Capstone	3	Summer Semester
MAT343 Multivariable Calculus STA210 or STA310 (depending on year) STA303 or STA305 (depending on year) General Education Course	3 3	Spring Semester Concentration Course STA211 or STA311 (depending on year) Upper Division General Education Course General Education Course	3 3	Summer Semester	CHE321 Analytical Chemistry w/Lab STA305 or STA303 (depending on year) STA310 or STA210 (depenidng on year) General Education Course	3 3	Spring Semester Concentration Course STA311 or STA211 (depending on year) STA499 Capstone General Education Course	3 3	Summer Semester

Total Units: 124 (124 units required to graduate)