# **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 (odd 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	

<b>Concentration Requirements</b>	Pre-Req	Units	Note
CHE115 General Chemistry I w/Lab	CHE102 or HS Chem	4	Fall only
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 (odd years)
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 (even years)
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	

<sup>\*</sup>Course is interdisciplinary

Upper Division Requirements	12	CHE321 & CHE370/470 will fulfill 8 units
Interdisciplinary Requirements	9	STA499 will fulfill 3 units
Multicultural Requirements	9	ENG123 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 www.calbaptist.edu/about/universitycatalogs.aspx.
- 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**

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		Freshman Year			Sophomore Year	
Fall Semester		Spring Semester	<b>Summer Semester</b>	Fall Semester	Spring Semester	<b>Summer Semester</b>
MAT245 Analytical Geometry & Calculus I STA144 Introduction to Statistics ENG113 Composition GST100 Focus General Education Course	3 3 1 3	CIS268 Computer Programming Languages  MAT255 Analytical Geometry & Calculus II  STA205 or GE Course (depending on year)  ENG123 Intermediate Composition  General Education Course 3		CHE115 General Chemistry I w/Lab  MAT303 Linear Algebra w/ App to Diff Equations  MAT353 or STA210 (depending on year)  General Education Course  3  General Education Course  3	CHE125 General Chemistry II w/Lab  CHE230 Introduction to Molecular Modeling  GE Course or STA205 (depending on year)  GE Course or STA211 (depending on year)  Upper Division General Education Course  Elective  1	
Total Units:	14	Total Units: 16	Total Units:	Total Units: 16	Total Units: 15	Total Units:
Fall Semester	-	Junior Year	Summer Semester	Fall Samester	Senior Year	Summer Semester
Fall Semester CHE321 or MAT343 (depending on year) STA210 or MAT353 (depending on year) STA305 or STA310 (depending on year) STA303 or GE Course (depending on year) General Education Course	3 3 3	Junior Year Spring Semester  Concentration Course  (depending on year)  GE Course or STA311 (depending on year)  Upper Division General Education Course  Elective  2	Summer Semester	Fall Semester  MAT343 or CHE321 (depending on year)  STA310 or STA305 (depending on year)  GE Course or STA303 (depending on year)  General Education Course  3  General Education Course  3	Senior Year Spring Semester  Concentration Course 4  STA499 Capstone 3  STA311 or GE Course (depending on year) 3  General Education Course 3  Elective 3	Summer Semester

Total Units: 124 (124 units required to graduate)