

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) 552 - 8662 | James 454 | | | |
| Dr. Lisa Hernandez, Chair | lihernandez@calbaptist.edu | | | |
| Rita Schneider, Department Secretary | rschneider@calbaptist.edu | | | |
| Dr. Linn Carothers, Faculty Advisor | lcarothers@calbaptist.edu | | | |
| Office of Academic Advising | Yeager B146 | | | |
| (951) 343 - 4567 | advising@calbaptist.edu | | | |



| | Freshman Year | | | Sophomore Year | |
|---|--|------------------------|--|--|------------------------|
| Fall Semester | Spring Semester | Summer Semester | Fall Semester | Spring Semester | Summer Semester |
| MAT245 Analytical 4 | MAT255 Analytical 4 | | CHE115 General Chemistry 4 | CHE125 General Chemistry 4 | |
| Geometry & Calculus I STA144 Introduction to | Geometry & Calculus II | | I w/Lab MAT303 Linear Algebra w/ | II w/Lab CHE230 Introduction to | |
| Statistics 3 | STA205 or CIS268 (depending on year) | | App to Diff Equations 3 | Molecular Modeling | |
| | ENG123 Intermediate 3 | | MAT353 Probability & | CIS268 or STA205 | |
| ENG113 Composition 3 | Composition | | Statistics | (depending on year) | |
| GST100 Focus 1 | General Education Course 3 | | General Education Course 3 | Upper Division General Education Course | |
| General Education Course 3 | General Education Course 3 | | General Education Course 3 | General Education Course 3 | |
| | | | | Elective 1 | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| Total Units: 14 | Total Units: 16 | Total Units: | Total Units: 16 | Total Units: 15 | Total Units: |
| | | | | | |
| - | | | | | |
| | | | | | |
| | Junior Year | | | Senior Year | |
| Fall Semester | Junior Year Spring Semester | Summer Semester | Fall Semester | Senior Year Spring Semester | Summer Semester |
| Fall Semester MAT343 Multivariable Calculus 4 | | Summer Semester | Fall Semester CHE321 Analytical Chemistry w/Lab | | Summer Semester |
| MAT343 Multivariable Calculus STA210 or STA310 3 | Spring Semester Concentration Course 4 STA211 or STA311 3 | Summer Semester | CHE321 Analytical Chemistry w/Lab STA305 or STA303 | Spring Semester Concentration Course 4 STA311 or STA211 3 | Summer Semester |
| MAT343 Multivariable Calculus STA210 or STA310 (depending on year) 3 | Spring Semester Concentration Course 4 STA211 or STA311 (depending on year) 3 | Summer Semester | CHE321 Analytical Chemistry w/Lab STA305 or STA303 (depending on year) 4 | Spring Semester Concentration Course 4 STA311 or STA211 (depending on year) 3 | Summer Semester |
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Total Units: 124 (124 units required to graduate)