# Chemistry - Advanced Studies in Chemistry

## Major Requirements

Lower Division 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
MAT245 Analytical Geometry & Calculus I	MAT135 or 145	4	See catalog
MAT255 Analytical Geometry & Calculus II	MAT245	4	
PHY214 Physics for Scientists I w/Lab	MAT145 or 245	4	Fall only (entrance exam)
PHY224 Physics for Scientists II w/Lab	PHY214	4	Spring only

Upper Division Requirements	Pre-Req	Units	Note
CHE321 Analytical Chemistry w/Lab	CHE125	4	Fall only
CHE351 Organic Chemistry I w/Lab	CHE125	4	Fall only
CHE352 Organic Chemistry II w/Lab	CHE351	4	Spring only
CHE415 Physical Chemistry I	CHE125 & MAT145 or 245	3	Fall only
CHE416 Physical Chemistry II w/Lab	CHE125, 230 & MAT245	4	Spring only (odd years)
CHE470 Instrumental Analysis	CHE321	4	Spring only (even years)
CHE480 Chemistry Research Seminar	See catalog	1	

Concentration Requirements	Pre-Req	Units	Note
CHE490 Senior Research in Chemistry	CHE125	3	Dept. Chair consent
Complete 12 additional units from the following co	urses:		
CHE341 Advanced Inorganic Chemistry w/Lab	See catalog	4	Spring only (even years)
CHE370 Environmental Chemistry w/Lab	CHE125 & BIO146 or 148	4	Spring only (odd years)
CHE400 Special Topics in Chemistry	-	3	
CHE443 Biochemistry I w/Lab	CHE351	4	Spring only
CHE444 Biochemistry II w/Lab	CHE443	4	Fall only

Total Major Units:	64	
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Upper Division Major Units:	39	
Opper Division Major Units.	33	

## General Education Requirements

Competency Requirements	Units	Note
English Competency	3	ENG113 required
Math Competency	3	MAT245 will fulfill. STA144 recommended.
Technology	3	CIS265 recommended
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. CHE101 recommended.
Science or Kinesiology	4	CHE351 will fulfill
Christian Studies	9	

\*Course is interdisciplinary

Upper Division Requirements	12	CHE321 & 351 will fulfill 6 units
Multicultural Requirements	9	ENG123 will fulfill 3 units
Interdisciplinary Requirements	9	

Total Required GE units:	51
ner Division Required GE Units:	6

Additional Elective Units Needed:	9	
or Division Floctive 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**

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		Freshman Year				Sophomore Year		
Fall Semester		<b>Spring Semester</b>	<b>Summer Semester</b>	Fall Semester		<b>Spring Semester</b>		<b>Summer Semester</b>
CHE115 General Chemistry I w/Lab	4	CHE125 General Chemistry II w/Lab 4		CHE351 Organic Chemistry I w/Lab	4	Molecular Modeling	1	
ENG113 Composition	3	ENG123 Composition 3		MAT245 Analytical Geometry & Calculus I	4	CHE352 Organic Chemistry II w/Lab	4	
GST100 Focus	1	General Education Course 3		Upper Division General Education Course	3	MAT255 Analytical Geometry & Calculus II	4	
General Education Course	3	General Education Course 3		General Education Course 3	3	General Education Course	3	
General Education Course (or Math Course if needed)	3	General Education Course 3		Elective 1	1	General Education Course	3	
						Elective	1	
Caution: If additional Math it taken, an additional GE must l					4		_	
added to this plan.								
Total Units:	14	Total Units: 16	Total Units;	Total Units: 1	5_	Total Units: _	16	Total Units:
		Junior Year	1			Senior Year		
Fall Semester	1	Spring Semester	Summer Semester	Fall Semester		Spring Semester		Summer Semester
CHF321 Analytical	4	CHE470 Instrumental Analysis  4		CHE415 Physical Chemistry I	3	CHE416 Physical	4	
PHV214 Physics for	4	PHY224 Physics for Scientists II w/Lab		CHE480 Chemistry Research Seminar	1	CHE400 Conjor Passarch in	3	
Upper Division General Education Course	3	Concentration Course 4		Concentration Course 4	4	Concentration Course	4	
General Education Course	3	General Education Course 3		General Education Course 3	3	General Education Course	3	
Elective	2	Elective 1		General Education Course 3	3	Elective	2	
				Elective 1	1			
					$\rfloor$			
Total Units:	16	Total Units: 16	Total Units:	Total Units: 1	5	Total Units:	16	Total Units:

Total Units: <u>124</u> (124 units required to graduate)