Chemistry - Advanced Studies in Chemistry 2012-2013

Major Requirements

Lower Division Requirements	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
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 (odd years)
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 (even years)
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 courses:			
CHE341 Advanced Inorganic Chemistry w/Lab	See catalog	4	Fall only (even years)
CHE370 Environmental Chemistry w/Lab	CHE125 & BIO146 or 148	4	Spring only (odd years)
CHE400 Special Topics in Chemistry	-	1-3	
CHE443 Biochemistry I w/Lab	CHE351	4	Spring only
CHE444 Biochemistry II w/Lab	CHE443	4	Fall only

Total Major Units: 64

Upper Division Major Units: 39

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**
Interdisciplinary Requirements	**9**	
Multicultural Requirements	**9**	**ENG123 will fulfill 3 units**

Total Required GE units: 51

Upper Division Required GE Units: 6

Additional Elective Units Needed: 9

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

Fall Semester		Spring Semester		Summer Semester	
CHE115 General Chemistry I w/Lab	4	CHE125 General Chemistry II w/Lab	4		
ENG113 Composition	3	ENG123 Composition	3		
GST100 Focus	1	General Education Course	3		
General Education Course	3	General Education Course	3		
General Education Course (or Math Course if needed)	3	General Education Course	3		
Caution: If additional Math is taken, an additional GE must be added to this plan.					
Total Units:	14	Total Units:	16	Total Units:	

Sophomore Year

Fall Semester		Spring Semester		Summer Semester	
CHE351 Organic Chemistry I w/Lab	4	CHE230 Introduction to Molecular Modeling	1		
MAT245 Analytical Geometry & Calculus I	4	CHE352 Organic Chemistry II w/Lab	4		
Upper Division General Education Course	3	MAT255 Analytical Geometry & Calculus II	4		
General Education Course	3	General Education Course	3		
Elective	1	General Education Course	3		
		Elective	1		
Total Units:	15	Total Units:	16	Total Units:	

Junior Year

Fall Semester		Spring Semester		Summer Semester	
CHE321 or CHE415 (depending on year)	4/3	CHE470 or CHE416 (depending on year)	4		
PHY214 Physics for Scientists I w/Lab	4	PHY224 Physics for Scientists II w/Lab	4		
Upper Division General Education Course	3	Concentration Course	4		
General Education Course	3	General Education Course	3		
Elective	2	Elective	1		
Total Units:	16/15	Total Units:	16	Total Units:	

Senior Year

Fall Semester		Spring Semester		Summer Semester	
CHE415 or CHE321 (depending on year)	3/4	CHE416 or CHE470 (depending on year)	4		
CHE480 Chemistry Research Seminar	1	CHE490 Senior Research in Chemistry	3		
Concentration Course	4	Concentration Course	4		
General Education Course	3	General Education Course	3		
General Education Course	3	Elective	2		
Elective	1				
Total Units:	15/16	Total Units:	16	Total Units:	

Total Units: 124 (124 units required to graduate)

SAMPLE