

Department of Chemistry  
**Major in Chemistry (C 50), for Fall 2009 Advising**

Name: \_\_\_\_\_ CSUID: \_\_\_\_\_ Expected Graduation: \_\_\_\_\_

Local Address: \_\_\_\_\_ City/State: \_\_\_\_\_ / \_\_\_\_\_ Zip: \_\_\_\_\_ Tel.: \_\_\_\_\_

Key Undergraduate Advisor: Lisa Dysleski Room C109 Chemistry Tel. 491-0722 e-mail: ldysl@lamar.colostate.edu

**All University Core Curriculum**

Core Courses	Credits
<b>1. Basic Competencies</b>	
___ A. Written Communication	3
___ B. Mathematics (MATH 160, Calculus for Physical Scientists I)	4
<b>2. Additional Communication</b>	
___ A. Oral Communication** (see below)	3
<b>OR</b>	
___ B. Advanced Writing	3

\*\* First-time students entering the University after July 01, 2008 **must** take an advanced writing course to fulfill Category 2.

**3. Foundations and Perspectives**

___ A. Biological/Physical Sciences (BZ 104/105, BZ 110/111, BZ 120, or LIFE 102; and PH 141)	7
___ B. Arts/Humanities	6
___ C. Social/Behavioral Sciences	3
___ D. Historical Perspectives	3
___ E. Global and Cultural Awareness	3

**4. Depth and Integration**

8  
 See required classes for 4A, 4B, and 4C below

Major in Chemistry-Grades of greater than "D" are required in the following classes:

COURSE	TITLE (semesters offered)	CREDITS	AUCC	PREREQUISITES
<u>Freshman Year:</u>				
___CHEM 117 and CHEM 192	General Chemistry I (F)	4		MATH 118 or placement in MATH 124 or higher
<u>OR</u>				
___CHEM 111	General Chemistry I (F,S,SS)	4		MATH 118 or placement in MATH 124 or higher
___CHEM 112	General Chemistry Laboratory I (F,S,SS)	1		CHEM 111 or concurrent registration
___CHEM 113	General Chemistry II (F,S,SS)	3		CHEM 107 or CHEM 111; MATH 124
___CHEM 114	General Chemistry Laboratory II (F,S,SS)	1		CHEM 112; CHEM 113 or concurrent registration
___MATH 160	Calculus for Physical Scientists I (F,S,SS)	4	1B	MATH 126; MATH 124 or concurrent registration
___MATH 161	Calculus for Physical Scientists II (F,S,SS)	4	1B	MATH 124; MATH 160
___Biological Science - choose 4 credits including lab: BZ 104/105, BZ 110/111, BZ 120, LIFE 102 (F,S,SS)		4	3A	none
<u>Sophomore year:</u>				
___CHEM 261	Fundamentals of Inorganic Chemistry (S)	3		CHEM 113
___CHEM 345	Organic Chemistry I (F)	4		CHEM 113, CHEM 114
___CHEM 346	Organic Chemistry II (S)	4		CHEM 345
<u>OR</u>				
___CHEM 341	Modern Organic Chemistry (F,S)	3		CHEM 113, CHEM 114
___CHEM 343	Modern Organic Chemistry II (F,S)	3		CHEM 341 or CHEM 245 or CHEM 345
___CHEM 344	Modern Organic Chemistry Lab (F,S)	2		CHEM 343 or CHEM 346 or concurrent registration
___PH 141	Physics for Scientists and Eng. I (F,S,SS)	5	3A	MATH 160
___PH 142	Physics for Scientists and Eng. II (F,S)	5	3A	PH 141; MATH 161 or concurrent registration
___MATH 261	Calculus for Physical Scientists III (F,S,SS)	4		MATH 161
___Statistics	STAT 301 or STAT 315	3		(varies)
<u>Junior year:</u>				
___CHEM 335	Introduction to Analytical Chemistry (F,S)	3	4A	CHEM 113; <u>concurrent registration in CHEM 334</u>
___CHEM 334	Quantitative Analysis Laboratory (F,S)	1		CHEM 114; <u>concurrent registration in CHEM 335</u>
___CHEM 440	Advanced Organic Chemistry Laboratory (F)	2	4B	CHEM 344 or CHEM 346
___CHEM 474	Physical Chemistry I (F)	3		CHEM 113; MATH 261; PH 142; <u>concurrent registration in CHEM475</u>
___CHEM 475	Physical Chemistry Laboratory I (F)	1		<u>CBE333 or CHEM332 or CHEM334; concurrent registration in CHEM474</u>
___CHEM 476	Physical Chemistry II (S)	3	4B	CHEM 474
___CHEM 477	Physical Chemistry Laboratory II (S)	1		CHEM 475; <u>concurrent registration in CHEM476</u>
<u>Senior year:</u>				
___CHEM 493	Senior Seminar (F)	2	4C	CHEM 474
___CHEM 431	Instrumental Analysis (F)	4		CHEM 332 or CHEM 334; CHEM 474 or CHEM 471 or concurrent registration
___CHEM 461	Inorganic Chemistry (S)	3		CHEM 261; CHEM 476 or concurrent registration
___CHEM 462	Inorganic Chemistry Laboratory (S)	2		CHEM 461 or concurrent registration
___BC 351 or BC 401	Biochemistry (varies)	3 - 4		varies
___Upper level science electives (varies)***		7 - 8		(to make a total of 11 credits when combined with choice of biochemistry)

\*\*\* According to the Spring 2008 ACS guidelines, research may satisfy up to 4 semester credit hours of in-depth coursework.