

LMU Department of Natural Science

Secondary Science Education Curriculum

Chemistry Emphasis (126 S.H.)

Freshman Year				Sophomore Year			
<i>Fall Semester</i>			<i>S.H.</i>	<i>Fall Semester</i>			<i>S.H.</i>
BIOL	101	General Biology I	3	BIOL	201	Cell Function	3
BIOL	111	General Biology I Lab	2	CHEM	220	Organic Chemistry I	3
CHEM	110	General Chemistry I	3	CHEM	221	Organic Chemistry I Lab	1
CHEM	111	General Chemistry I Lab	1	NTLS	250	The Blue Planet: Introduction to Earth System Science	3
MATH	122	Calculus I *	3	_____	_____	HIST 161 or POLS 135 (core)**	3
ENGL	110	College Writing I	3	PSYC	100	General Psychology (core)	<u>3</u>
NTLS	190	Exploring the Natural Sciences	1				16
			16				
<i>Spring Semester</i>			<i>S.H.</i>	<i>Spring Semester</i>			<i>S.H.</i>
BIOL	102	General Biology II	3	CHEM	222	Organic Chemistry II	3
BIOL	112	General Biology II Lab	2	CHEM	223	Organic Chemistry II Lab	1
CHEM	112	General Chemistry II	3	CHEM	360/361	Quantitative Analysis + Lab	4
CHEM	113	General Chemistry II Lab	1	_____	_____	Elective	3
MATH	123	Calculus II	3	EDUC	400	Socio-Cultural Analysis of Education	3
_____	_____	University Core	<u>3</u>	EDUC	414	Theories in Second Language Acquisition	<u>3</u>
			15				17
Junior Year				Senior Year			
<i>Fall Semester</i>			<i>S.H.</i>	<i>Fall Semester</i>			<i>S.H.</i>
CHEM	370	Introduction to Biochemistry	3	CHEM	340	Physical Chemistry I	3
NTLS	376/ 377	Workshop Chemistry: Elements of Nature +Lab	3	CHEM	341	Physical Chemistry I Lab	1
PHYS	253	General Physics I	4	NTLS	301	Environmental Science	3
PHYS	255	General Physics I Lab	0	NTLS	367	The Science & Life of Galileo	
_____	_____	University Core	3	or	or		
EDUC	440	Introduction to the Culturally and Linguistically Diverse Student ...	<u>3</u>	PHYS	271	Astronomy	3
			16	_____	_____	U.D. Elective	<u>3</u>
				_____	_____	University Core U.D.	<u>3</u>
							16
<i>Spring Semester</i>			<i>S.H.</i>	<i>Spring Semester</i>			<i>S.H.</i>
NTLS	378/379	Workshop Chemistry: Elements of Nature +Lab	3	CHEM	330	Inorganic Chemistry	3
PHYS	254	General Physics II	4	NTLS	491	¹ Science Education Internship	3
PHYS	256	General Physics II Lab	0	_____	_____	University Core	3
EDUC	401	Applied Educational Psychology for the Childhood & Adolescent Years	3	_____	_____	University Core	3
_____	_____	University Core	3	_____	_____	University Core	<u>3</u>
_____	_____	University Core	<u>3</u>				15
			16				

¹ The science education internship is placed in the paradigm during the senior year because the units can be accommodated there. We encourage all students to complete the internship requirement as early as possible. Most do their first internship during the summer after their sophomore year.

* The course sequence in Mathematics depends on the results of the mathematics placement examination.

** Completion of either course will satisfy a University core requirement. Please see advisor for the proper sequence of the University Core courses.