

2006-2007 SAMPLE CURRICULUM: It may not be necessary to take these courses in the order given. Please consult your advisor.

		FALL	WINTER	SPRING
FIRST YEAR	Orientation Seminar (UNST 101)	1	-	-
	College Writing (ENGL 111, 112, 113)	3	3	3
	Growing Up in America (SSCI 104) OR Identity & Society (SSCI 105) OR Childhood in Global Perspective (SSCI 106)	-	-	4
	Theme III: Religious Belief & Practice	4	-	-
	Lifetime Fitness (PEAC 120)	-	2	-
	* Chemistry Seminar (CHEM 205)	0.5	-	0.5
	* General Chemistry (CHEM 111, 112, 113 & Labs)	5	5	5
	** Calculus I, II, III (MATH 131, 132, 133)	4	4	4
		<u>17.5</u>	<u>14.0</u>	<u>16.5</u>
SECOND YEAR	* Chemistry Seminar (CHEM 205)	0.5	-	0.5
	* Analytical Chemistry (CHEM 224)	4	-	-
	* Organic Chemistry I, II, III (CHEM 371, 372, 373 & Labs)	4	4	4
	** General Physics (PHYS 231, 232, 233 & Labs)	5	5	5
	Exploring American Culture through Literature (HUMN 204) OR Expl. Amer. Culture through Visual & Perf. Arts (HUMN 205)	-	-	4
	THEME III: Religious Beliefs & Practice	-	4	-
	Modern Language through Intermediate Level (101, 102, 103)	4	4	4
		<u>17.5</u>	<u>17.0</u>	<u>17.5</u>
THIRD YEAR	* Physical Chemistry (CHEM 351, 352, 353 & Labs)	4	4	4
	* Advanced Organic Laboratory (CHEM 375)	1	-	-
	* Chemistry Elective to complete 69 units	4	-	-
	* Introduction to Research (CHEM 408)	1	-	-
	Upper Division Rhetorical Course (This requirement met by CHEM 405, 408, and 1 from CHEM 424, 425, or 426)	-	-	(4)
	THEME IA: Understanding Human Beings OR National & Global Citizenship	-	4	-
	THEME IIB: Historical or Contemporary Cultural Context	-	4	-
	THEME IIA: Arts Appreciation or History	-	4	-
	Adventism in a Global Perspective (RLGN 304) OR The Experience of Religion in Three Cultures (RLGN 305)	-	-	4
	Modern Language through Intermediate Level (201)	4	-	-
	Electives	-	-	8
		<u>14.0</u>	<u>16.0</u>	<u>16.0</u>
FOURTH YEAR	* Instrumental Analysis: Select 2 courses from CHEM 424 & Lab OR 425 & Lab OR 426 & Lab	4	-	4
	* Senior Seminar (CHEM 405)	-	-	1
	* Directed Research (CHEM 498)	1	-	-
	* Chemistry Electives to complete 69 units	4	4	-
	THEME III: Religious Beliefs & Practices	-	-	4
	Scientific Foundations: Choose one course from the following: NSCI 404, 405, 406, 407	4	-	-
	Religious, Moral & Social Aspects Chemistry (UNST 404D)	4	-	-
	Electives to complete 190 units	4	8	8
		<u>17.0</u>	<u>16.0</u>	<u>17.0</u>

* Major Requirements

** Cognate Requirements

CHEMISTRY

B.S. Degree

CAREER OPPORTUNITIES AND RELATED OCCUPATIONS: Chemists work in research and in industry as chemical engineers, occupational safety/health managers, agricultural scientists, chemical technicians, and in fields such as quality control, research and development, environmental testing crime laboratories, food chemistry, manufacturing industries, pharmaceuticals. Chemists also may teach and work in health-related fields including medicine, dentistry, allied health, health science, and medical technology. The majority of industry-related jobs in chemistry are filled by B.S. Chemistry applicants. Education-related jobs in chemistry may be filled by either B.A. or B.S. Chemists.

EDUCATIONAL QUALIFICATIONS: Entry-level jobs in industry require the bachelor's degree in chemistry. Advanced study or training beyond the bachelor's degree is required for the jobs listed above involving research and management training.

DENOMINATIONAL OPPORTUNITIES: Opportunities are limited to the teaching field. Students with bachelor's degrees in chemistry, biochemistry, or physical science will have good denominational employment opportunities for teaching the physical sciences, including chemistry and biochemistry, in academies.

JOB OUTLOOK: Employment of chemists is expected to grow more slowly than the average rate for all occupations through 2014. Job growth will be concentrated in pharmaceutical and medicine manufacturing and in professional, scientific, and technical services firms. Employment in the nonpharmaceutical segments of the chemical industry, a major employer of chemists, is expected to decline over the projection period.

ENTERING SALARY: The National Association of College and Employers reports that for Spring 2006 the national entering wage level for those with a Bachelor's degree in Chemistry was **\$38,646** per year and those with a Doctoral degree was **\$63,446**. According to the Occupational Outlook Handbook, the median annual earnings of chemists in 2004 were **\$56,060**.

SOURCES OF ADDITIONAL INFORMATION

Websites:

La Sierra University

<http://www.lasierra.edu/>

Department Contacts:

Chairperson:

Marvin Payne

Advisors:

Nate Brandstater

Krista Motschieder

Raymond Shelden

Roger Tatum

Location:

Palmer Hall Room 230

951-785-2148

Pre-Professional Coordinator:

Becky Connell; bconnell@lasierra.edu

Palmer Hall Room 242A

951-785-2490

Professional Organizations & Career Information:

American Chemical Society,

Education Division

1155 16th St. NW.

Washington, DC 20036

<http://www.acs.org>

Academic Advising
Administration Building
Room 206
(951) 785-2951

LA SIERRA
UNIVERSITY