

2008–2009 CURRICULUM CHECK SHEET is a guide to the requirements of this major. **It is NOT necessary to take these courses in the order given.** Please consult the online Bulletin for specific details (<http://www.lasierra.edu/academics/bulletin>).

		FALL	WINTER	SPRING
<b>FIRST YEAR</b>	* General Biology (BIOL 111, 112, 113 & Labs)(15 units)	_____	_____	_____
	** Calculus I (MATH 131)(4 units)	_____	_____	_____
	** General Chemistry I, II, III (CHEM 111, 112, 113 & Labs)(15 units)	_____	_____	_____
	First Year Seminar (UNST 101)(2 units)	_____	_____	_____
	College Writing (ENGL 111, 112, 113)(9 units)	_____	_____	_____
	Growing Up in America (SSCI 104) OR Identity and Society (SSCI 105) OR Childhood in Gobar Perspective (SSCI 106)(4 units)	_____	_____	_____
	Lifetime Fitness (PEAC 120)(2 units)	_____	_____	_____
<b>SECOND YEAR</b>	* Tools & Methods I, II, III (BIOL 221, 222, 223)(3 units)	_____	_____	_____
	** Organic Chemistry I, II, III (CHEM 371, 372, 373 & Labs)(12 units)	_____	_____	_____
	** General Physics (PHYS 231, 232, 233 & Labs)(15 units)	_____	_____	_____
	Theme IA: Understanding Human Beings OR National and Global Citizenship (4 units)	_____	_____	_____
	Exploring American Culture thru Literature (HUMN 204) OR Expl. Amer. Culture thru Visual & Perf. Arts (HUMN 205)(4 units)	_____	_____	_____
	Theme III: Religious Beliefs and Practice (8 units)	_____	_____	_____
	World Language Foundational Studies requirement (12 units)	_____	_____	_____
<b>THIRD YEAR</b>	* Biology Colloquium I (BIOL 350)(1 unit)	_____	_____	_____
	* Biostatistics (BIOL 376)(4 units)	_____	_____	_____
	* Cellular and Molecular Biology (BIOL 301 & Lab)(5 units)	_____	_____	_____
	* Genetics (BIOL 302 & Lab)(5 units)	_____	_____	_____
	* Developmental Biology (BIOL 303 & Lab)(5 units)	_____	_____	_____
	Theme IIA: Arts Appreciation or History (4 units)	_____	_____	_____
	Theme IIB: Historical or Contemporary Culture & Context (4 units)	_____	_____	_____
	Rhetorical Course (Upper Division) This requirement met by BIOL 301L, 302L, 303L and 405 (4 units)	_____	_____	_____
	Adventism in Global Perspective (RLGN 304) OR Religion in Three Cultures (RLGN 305)(4 units)	_____	_____	_____
	Electives	_____	_____	_____
<b>FOURTH YEAR</b>	* Seminar (BIOL 405)(2 units)	_____	_____	_____
	* Biology Electives 12 units from BIOL 408,410,434,436,439,446,466,467,469,474,485,487, any upper division course taught at Rosario Marine Station	_____	_____	_____
	* General Ecology (BIOL 414) OR Environmental Science (BIOL 415)(4 units)	_____	_____	_____
	* Vertebrate Natural History (BIOL 477)(4 units)	_____	_____	_____
	Scientific Foundations: Choose one course from the following: NSCI 404, 405, 406, 407 (4 units)	_____	_____	_____
	Theme III: Religious Belief and Practice (4 units)	_____	_____	_____
	Religious, Moral & Social Aspects of Biology (UNST 404B)(4 units)	_____	_____	_____
	Electives to complete 190 quarter units	_____	_____	_____
	* Major Requirements (60 units)			
	** Cognate Requirements			

# BIOLOGY

## Biological Science

*B.S. Degree*

The objectives of the Department of Biology are to help students better understand themselves and the natural world, to develop a scholarly and practical approach to the study of scientific information, and to prepare them for a career in biology or any of the many other related fields of employment.

**CAREER OPPORTUNITIES AND RELATED OCCUPATIONS:** Biology graduates are employed in a broad variety of government and private sector positions including, but not limited to field positions (forest service, park service, fish and wildlife management, conservation, ecology), agriculture research or management, food manufacturing industries, waste management, environmental safety and testing, industrial quality control, pharmaceutical and immunochemical industries, biotechnology (genetic engineering, molecular biology, microbiology, immunology), health related research (cancer, infectious disease, genetics), health professions (medicine, dentistry, optometry, allied health, public health), and teaching at the secondary and college levels.

**EDUCATIONAL QUALIFICATIONS:** Graduate training in a given area enhances the students' employability in some areas. Extraordinary opportunities are provided for the Biology students to obtain valuable experience in research laboratories of the faculty.

**JOB OUTLOOK:** Employment of biological scientists is projected to grow about as fast as average for all occupations over the 2004-14 period, as biotechnological research and development continues to drive job growth. Opportunities for those with a bachelor's or master's degree in biological science are expected to be better.

**ENTERING SALARY:** According to the National Association of Colleges and Employers, beginning salary offers in April 2006 averaged **\$32,550** a year for bachelor's degree recipients in Biological and Life Sciences.

In 2005, the average entering salaries for credentialed teachers in the Inland Empire begin at **\$39,618**. Those with a Master's degree and more experience an average of about **\$70,000** a year.

As in any profession, salaries are determined by experience, professional preparation, employment setting and economic conditions of geographic location. Specific geographic regions, including Southern California, may provide more job opportunities and higher pay scales because of the high concentration of health related research facilities and biotechnology firms in the area.

### SOURCES OF ADDITIONAL INFORMATION

*Websites:*

**La Sierra University**

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

**Department of Biology**

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

*Department Contacts:*

**Chairperson:**

Lawrence McCloskey

**Advisors:**

G. Bradley

L. McCloskey

N. Dean

J. Perumal

L. Grismer

J. Wilson

E. Joseph

**Location:**

Price Science Complex

951-785-2105

Professional Organizations:

American Institute of Biological  
Sciences

Suite 200, 1444 I St. NW

Washington, DC 20005

**<http://www.aibs.org>**

American Society for Biochemistry  
and Molecular Biology

9650 Rockville Pike

Bethesda, MD 20814

**<http://www.faseb.org/asmb>**

Academic Advising  
Center for Student Academic Success  
Sierra Vista Hall, Room 114  
(951) 785-2452

LA SIERRA  
UNIVERSITY