

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

		FALL	WINTER	SPRING
<b>FIRST YEAR</b>	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 Beliefs & Practice	-	-	4
	Modern Language through Intermediate Level (101, 102, 103)	4	4	4
	Lifetime Fitness (PEAC 120)	-	-	2
	* Calculus I, II, III (MATH 131, 132, 133)	4	4	4
	* Introduction to Computer Science (CPTG 121)	4	-	-
		<u>16.0</u>	<u>15.0</u>	<u>17.0</u>
<b>SECOND YEAR</b>	* Introduction to Linear Algebra & Discrete Math., Differential Equations, Vector Calculus (MATH 231, 232, 233)	4	4	4
	** General Physics (PHYS 231 & Lab)	5	-	-
	** Cognate Electives: 8 units from PHYS 232, 233 OR CHEM 351, 352, 353	-	4	4
	THEME IA: Understanding Human Beings OR National & Global Citizenship	-	4	-
	THEME IIA: Arts Appreciation or History	4	-	-
	THEME II: Historical or Contemporary Culture & Context 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 (201)	-	-	4
		<u>4</u>	<u>-</u>	<u>-</u>
		<u>17.0</u>	<u>16.0</u>	<u>16.0</u>
<b>THIRD YEAR</b>	* Linear Algebra (MATH 324) <i>alternate years</i>	4	-	-
	* Abstract Algebra (MATH 421) <i>alternate years</i>	-	4	-
	* Math Electives: 12 units (Upper Division): CPTG OR MATH required	4	4	4
	* Mathematics Seminar (MATH 485) OR Computer Science Seminar (CPTG 485) (2 units required)	0.5	0.5	0.5
	Adventism in a Global Perspective (RLGN 304) OR The Experience of Religion in Three Cultures (RLGN 305)	-	-	4
	THEME IVA: Life Science	4	-	-
	Upper Division Rhetorical Course	-	4	-
	Electives	<u>4</u>	<u>4</u>	<u>8</u>
		<u>16.5</u>	<u>16.5</u>	<u>16.5</u>
<b>FOURTH YEAR</b>	* Sets & Number Systems (MATH 415) <i>alternate years</i>	4	-	-
	* Analysis I, II (MATH 431, 432) <i>alternate years</i>	-	4	4
	* Mathematics Seminar (MATH 485) OR Computer Science Seminar (CPTG 465)	0.5	-	-
	THEME III: Religious Beliefs & Practice	-	-	4
	Scientific Foundations: Choose one course from the following: NSCI 404, 405, 406, 407	4	-	-
	Religious, Moral & Social Aspects of Mathematics (UNST 404)	4	-	-
	Electives to complete 190 quarter units	<u>4</u>	<u>12</u>	<u>4</u>
		<u>16.5</u>	<u>16.0</u>	<u>12.0</u>
	* Major Requirements			
	** Cognate Requirements			

**NOTE:** Actuarial Emphasis: Students wishing to prepare for the preliminary examinations should consult the department chairman for the selection of appropriate math electives. Prospective teachers should consult department for California State Certification requirements.

# MATHEMATICS

## *B.S. Degree*

The department provides a curriculum in mathematics and computer science as a cultural study for all liberal arts students, as a basic tool for the scientist, and as a preparation for graduate study and teaching.

**CAREER OPPORTUNITIES AND RELATED OCCUPATIONS:** Many mathematics majors may find jobs in teaching, statistics, actuarial work, computer science, applied mathematics, systems analysis, operations, research analysis, economics, engineering, physical science, life science, finance and genetics.

**EDUCATIONAL QUALIFICATIONS:** Employment opportunities are best for those who combine a major in Mathematics with a minor in one of the above-mentioned subjects. A Bachelor's degree is the minimum educational requirement for many beginning jobs in industry. However, a graduate degree is essential for college and advanced positions in industry.

**JOB OUTLOOK:** Employment of mathematicians is expected to decline through 2014, reflecting the reduction in the number of jobs with the title "mathematician." As a result, competition is expected to be keen for the limited number of jobs as mathematicians. Master's and Ph.D. degree holders with a strong background in mathematics and a related discipline, such as engineering or computer science, should have the best opportunities. Many of these workers have job titles that reflect their occupation, such as systems analysts, rather than the title mathematician, reflecting their primary educational background.

**ENTERING SALARY:** The National Association of Colleges and Employers for Spring 2006 reports that the national entering wage level average for those with a Bachelor's degree in Mathematics was **\$41,124**.

## SOURCES OF ADDITIONAL INFORMATION

*Websites:*

**La Sierra University**

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

**Mathematics & Computing**

<http://cs.lasierra.edu>

*Department Contacts:*

**Chairperson:**

Vernon Howe

**Advisors:**

Wilton Clarke

John Ng Wong Hing

Vernon Howe

Jon Vanderwerff

**Location:**

Ambs Hall

951-785-2197

*Professional Organizations:*

Mathematical Assoc. of America,

1529 18th Street, NW,

Washington, D.C. 20036

<http://www.maa.org>

[http://www.maa.org/cbms/  
cbms.html](http://www.maa.org/cbms/cbms.html)

Society for Industrial and

Applied Mathematics

3600 Universal City Science Center

Philadelphia, PA 19104-2688

<http://www.siam.org/>

[alterindex.html](http://www.siam.org/alterindex.html)

American Mathematical Society,

Department of Professional Programs and  
Services,

P.O. Box 6248,

Providence, RI 02940-6248

<http://www.ams.org>

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

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