

Approved by Department. Last updated 7/1/09

2009-2010 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
FIRST YEAR	* Calculus I, II, III (MATH 131, 132, 133)(12 units) <i>Calculus prerequisite satisfies Math Foundational Studies Requirement</i>	_____	_____	_____
	* Introduction to Computer Science (CPTG 121)(4 units) First Year Seminar (UNST 101/100)(2-6 units) College Writing (ENGL 111, 112, 113)(9 units) Or (ENGL 124)(4 units) World Language Foundational Requirement (<i>Proficiency through 153</i>) Lifetime Fitness (PEAC 120)(2 units) Theme IC: Globalization, Identity, & Citizenship. <i>Choose 1 course from:</i> SSCI 104, 105, 106, 107 (4 units) Theme III: Religious Beliefs & Practice (4 units)	_____	_____	_____
	* Introduction to Linear Algebra & Discrete Math., Differential Equations, Vector Calculus (MATH 231, 232, 233)(12 units)	_____	_____	_____
	** General Physics (PHYS 231 & Lab)(5 units)	_____	_____	_____
	** Cognate Electives: 8 units from PHYS 232, 233 OR CHEM 351, 352, 353 (8 units) Theme IA/B: Understanding Human Beings OR National & Global Citizenship (4 units) Theme IIA: History & Appreciation of Arts (4 units) Theme IIB: Historical or Contemporary Culture & Context (4 units) Theme IIC: Exploring American Culture. <i>Choose 1 course from:</i> HUMN 204, 205 (4 units) Theme III: Religious Beliefs & Practice (4 units)	_____	_____	_____
THIRD YEAR	* Linear Algebra (MATH 324) alternate years (4 units)	_____	_____	_____
	* Abstract Algebra (MATH 421) alternate years (4 units)	_____	_____	_____
	* Math Electives: <i>12 additional units of upper division CPTG or MATH courses</i>	_____	_____	_____
	* Mathematics Seminar (MATH 485) OR Computer Science Seminar (CPTG 485)(.5 units)[2 units required] Theme III: Religious Beliefs and Practice. <i>Choose 1 course from:</i> RLGN 304, 305 (4 units) Theme IVA: Life Science (4 units) Upper Division Rhetorical Course (4 units) Electives	_____	_____	_____
	* Sets & Number Systems (MATH 415) alternate years (4 units)	_____	_____	_____
FOURTH YEAR	* Analysis I, II (MATH 431, 432) alternate years (8 units)	_____	_____	_____
	* Mathematics Seminar (MATH 485) OR Computer Science Seminar (CPTG 485)(.5 unit)[2 units required] Theme III: Religious Beliefs and Practice (4 units) <i>Must be in Scripture, Theme IIIC, unless previously taken</i> Theme IVC: Scientific Foundations. <i>Choose 1 course from:</i> NSCI 404, 405, 406, 407 (4 units) Theme V: Religious, Moral & Social Aspects of Mathematics (UNST 404T)(4 units) Electives to complete 190 quarter units	_____	_____	_____
	* Major Requirements (62 units)			
	** 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.

SALARY: The National Association of Colleges and Employers for 2008 reports that median annual earnings of mathematicians were **\$86,930**.

SOURCES OF ADDITIONAL INFORMATION

Websites:

La Sierra University

<http://www.lasierra.edu/>
Mathematics
www.lasierra.edu/departments/mathematics/

Department Contacts:

Chairperson:

Jon Vanderwerff, Ph.D.

Advisors:

Wilton Clarke, Ph.D.
Vernon Howe, Ph.D.
Jon Vanderwerff, Ph.D.

Location:

Price Science Complex, Rm 247
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>

Society for Industrial and
Applied Mathematics
3600 Universal City Science Center
Philadelphia, PA 19104-2688
<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
Center for Student Academic Success
Sierra Vista Hall, Room 114
(951) 785-2452

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