

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	** General Chemistry I, II, III (CHEM 111, 112, 113 & Labs)(15 units)	_____	_____	_____
	** Calculus I, II, III (MATH 131, 132, 133)(12 units)	_____	_____	_____
	# Social Science Course: Psychology or Sociology (4 units)	_____	_____	_____
	# Religion Course (4 units)	_____	_____	_____
	# General Education Elective (4 units)	_____	_____	_____
	First Year Seminar (UNST 101/100)(2-6 units)	_____	_____	_____
	College Writing (ENGL 111, 112)(6 units)	_____	_____	_____
SECOND YEAR	* General Physics (PHYS 231B, 232B, 233B & Labs)(15 units)	_____	_____	_____
	** Introduction to Linear Algebra AND Discrete Math (MATH 231, 232, 233)(12 units)	_____	_____	_____
	** Introduction to Computer Science (CPTG 121)(4 units)	_____	_____	_____
	Lifetime Fitness (PEAC 120)(2 units)	_____	_____	_____
	# Humanities: Fine Arts or Literature (4 units)	_____	_____	_____
	# Religion Course (4 units)	_____	_____	_____
	# Electives	_____	_____	_____
	* Major Requirements			
	** Cognate Requirements			
	# Consult the Pre-Engineering advisor in selecting these courses			

AFFILIATION PROGRAM: La Sierra University supports an affiliation program in engineering with Walla Walla University, College Place, WA. Upon completion of the LSU program, students may transfer to WWC with no loss of credits to complete the ABET accredited Bachelor of Science in Engineering degree. This degree provides emphasis in civil, computer, electrical/electronic or mechanical engineering. A Bachelor of Science in bioengineering that includes prerequisites for medical and dental schools is also available.

TRANSFER PROGRAM: The two-year program at LSU also prepares students to transfer to engineering programs such as electrical, mechanical, civil, aeronautical, etc. at University of California and California State University. Individual programs will be tailored to meet specific entrance requirements at the engineering school of the student's choice.

PRE-ENGINEERING

CAREER OPPORTUNITIES AND RELATED OCCUPATIONS: The primary fields of engineering are civil, electrical, mechanical, chemical, mining/petroleum, and industrial engineering. Subfields include structural, hydro-environmental, communications, computer, aeronautical, metallurgical, geophysical exploration engineering, sales, and administration. Engineers are the backbone of modern industrial society. Even without a formal degree in engineering, many employees receive that title since it is synonymous with “problem solver.”

EDUCATIONAL QUALIFICATIONS: A Bachelor’s degree is generally acceptable for beginning engineering positions. Graduate training is essential for teaching positions.

JOB OUTLOOK: Overall engineering employment is expected to grow about as fast as the average for all occupations over the 2004-14 period. Engineers have traditionally been concentrated in slow-growing manufacturing industries, in which they will continue to be needed to design, build, test and improve manufactured products. However, increasing employment of engineers in faster growing service industries should generate most of the employment growth. Overall job opportunities in engineering are expected to be favorable because the number of engineering graduates should be in rough balance with the number of job openings over this period.

ENTERING SALARY: The National Association of Colleges & Employers reports that for Spring 2008 the national entering wage level of engineering graduates with a Bachelor's degree in Mechanical Engineering averaged **\$54,128** per year; those with a Master's degree and no experience averaged **\$62,798**. Annual earnings depend on the field of engineering branch specialized.

SOURCES OF ADDITIONAL INFORMATION

Websites:

La Sierra University

www.lasierra.edu/

Department of Physics

www.lasierra.edu/departments/physics/

Advisor:

Ivan Rouse, Ph.D.
San Fernando Hall
951-785-2137

Walla Walla University

wallawalla.edu/academics/areas-of-study/undergraduate-programs/engineering/
Douglas Logan
509-527-2765

Professional Organizations:

Junior Engineering Technical Society
<http://www.jets.org>

The Accreditation Board of
Engineering and Technology, Inc.
<http://www.abet.org>

The National Society of Professional
Engineers
<http://www.nspe.org>

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

**LA SIERRA
UNIVERSITY**