AS Computer Science

Las Positas College offers Degrees and Certificate programs in Computer Science that prepare students for direct job entry and/or preparation for transfer to a four-year university. These programs cover a wide range of computer related professions that include programming, systems analysis, data processing, and computer science. Students will learn to direct computer operations by writing detailed instructions in computer languages to solve a variety of problems in business, government, and science. These include information acquisition, processing storage, and transmission, using computers and computer peripherals. Principal areas of study within computer science include artificial intelligence; computer systems and networks; database systems; human factors; numerical analysis; programming languages; software engineering and theory of computing.

SEMESTER 1 - FALL

Courses	Units	Prerequisites/Strongly Recommended	Semesters Offered
CS 1 (Computing Fundamentals I)	4	Math 107 (Strongly Recommended)	Fall & Spring
CS 41 (Introduction to Linux/UNIX, Linux+)	4	CIS 50 (Strongly Recommended)	Fall
ENG 1A (Critical Reading and Composition)	3	ENG 104 or ENG 105 with a "Pass" or ESL 25 or equiv course or appropriate skill level demonstrated through the Eng assessment process (Pre-Requisite)	Fall, Spring & Summer
MATH 39 (Trigonometry)	4	MATH 55 or 55B or 55Y (Pre-Requisite)	Fall, Spring & Summer
SEMESTER TOTAL	**15**		

SEMESTER 2 - SPRING

Courses	Units	Prerequisites/Strongly Recommended	Semesters Offered
CS 2 (Computing Fundamentals II)	4	CS 1 (Strongly Recommended)	Fall & Spring
MATH 20 (Pre-Calculus Mathematics)	5	MATH 39 (Pre-Requisite)	Fall, Spring & Summer
General Education Course (Humanities and American Cultures)	3		Fall, Spring & Summer
General Education Course (Social and Behavioral Science)	3		Fall, Spring & Summer
SEMESTER TOTAL	**15**		

SEMESTER 3 - SUMMER

Courses	Units	Prerequisites/Strongly Recommended	Semesters Offered
MATH 1 (Calculus I)	5	MATH 20 (Pre-Requisite)	Fall, Spring & Summer
General Education Course (Kinesiology)	1		Fall, Spring & Summer
SEMESTER TOTAL	**6**		

SEMESTER 4 - FALL

Courses	Units	Prerequisites/Strongly Recommended	Semesters Offered
MATH 2 (Calculus II)	5	MATH 1 (Pre-Requisite)	Fall, Spring & Summer
CS 20 (Advanced Programming Methods with Data Structures Using C++)	4	CS 2 (Pre-Requisite)	Fall & Spring
Select one course from the following: *(Program-Based GE Course)*	4-5		
CHEM 1A OR		Mathematics 55 or 55B or 55Y and Chemistry 31 (Pre-Requisite)	Fall, Spring & Summer
CHEM 31 OR		Mathematics 55 or 55B or 55Y (Pre-Requisite)	Fall, Spring & Summer
PHYS 8A OR		MATH 1 (Pre-Requisite)	Fall & Spring
PHYS 2A OR		MATH 20, MATH 36, or MATH 38 (Pre-Requisite)	Fall
MATH 40		MATH 55 or MATH 55B (Pre-Requisite)	Fall, Spring & Summer
SEMESTER TOTAL	**13-14**		

SEMESTER 5 - SPRING

Courses	Units	Prerequisites/Strongly Recommended	Semesters Offered
CS 21 (Computer Organization and Assembly	4	CS 1 (Pre-Requisite)	Fall & Spring
MATH 10 (Discrete Mathematics)	4	MATH 1 and CS 1 (Pre-Requisite or Co-Requisite)	Fall & Spring
Select one course from the following:	3.5-4		
MATH 7 (Elementary Linear Algebra) OR		MATH 2 (Pre-Requisite)	Fall & Spring
MATH 41 (Statistics for Busn Majors) OR			TBA
MATH 40 (Statistics and Probability)		MATH 55 or MATH 55B (Pre-Requisite)	Fall, Spring & Summer
General Education Course (Natural Science)	3		Fall, Spring & Summer
SEMESTER TOTAL	**14.5-15**		
Total Major Coursework	**37.5-38**		
Total Units Required (Minimum)	**60**		

NOTE: Completion of LPC's General Education Pattern for Associate in Science Degree is required.

Last Updated: 12/15/16