

COMPUTER SCIENCE BS PATHWAY

Total Units Required: 190 units

Required Course Listings

This breakdown shows a Computer Science BS Pathway to be completed in 4 years at La Sierra University. All courses with a star (★) indicate a prerequisite or multiple prerequisites for the class. Courses with a dagger (†) are only offered in years ending with an odd number (e.g. 2022-2023 school year) and courses with a double dagger (‡) are only offered in years ending with an even number (e.g. 2023-2024 school year). By following the suggested/required sequencing all necessary prerequisite courses will be fulfilled. Please consult the Bulletin, Records, or your Guided Pathways Advisor for more information about prerequisites. For questions contact the STEM Pathways Coordinator at STEMsupport@lasierra.edu or text (951) 405-2162 to set up an appointment.

Major Requirements (75 units)			General Education Requirements (115 units)		
Course	Course Title	Units	Course	Course Title	Units
CPTG 121	Introduction to Computer Science I★	4	UNST 101	First Year Seminar	3
CPTG 122	Introduction to Computer Science II★	4	ENGL 111	College Writing I	3
CPTG 244	Data Structures★	4	ENGL 112	College Writing II★	3
CPTG 245	Computer Organization & Assembly Language Programming★	4	ENGL 113	College Writing III★	3
CPTG 255	Systems & Network Programming★	4	MATH 121	College Algebra	4
CPTG 324	Programming Languages★†	4	WDLG 151	World Language I	4
CPTG 434	Operating Systems★‡	4	WDLG 152	World Language II★	4
CPTG 445	Computer Architecture★‡	4	WDLG 153	World Language III★	4
CPTG 485	Seminar★	1	HLSC 120	Lifetime Fitness	2
CPTG 485-SL	Seminar (with Service Learning)★‡	1	SSCI 20X-SL	SSCI Theme Course (with Service Learning)	4
MATH 276	Discrete Math★‡	4	THM1 X00	Theme I Elective	4
CPTG 3/400	Computer Science Upper Division Elective★	12	HUMN 10X	HUMN Theme Course	4
CPTG 334	Systems Analysis★†	4	THM2 X00	Theme II Elective	8
CPTG/C X00	Computer Science Cognate Elective	8	RLGN 304	Adventism in Global Perspective★	4
MATH 131	Calculus I★	4	RELB X00	Theme IIIBiii - Scripture Elective	4
BIOL 111	General Biology I★	4	THM3 3/400	Theme III Elective Upper Division★	4
BIOL 111L	General Biology I Lab★	1	THM3 X00	Theme III Elective	4
PHYS 117	Introduction to Physics	4	NSCI 40X	NSCI Theme Course★	4
PHYS 117L	Introduction to Physics Lab	0	UNST 404U-SL	Senior Seminar: Religion, Values & Social Responsibility (with Service Learning)★	4
			MATH 122	Trigonometry & Analytical Geometry★	4
			elct 3/400	Upper Division Elective	14
			elct X00	Elective	23

Sequencing

Computer Science BS Pathway in 4 years at La Sierra University.

Year 1	Fall Quarter (16 units)			Year 1	Winter Quarter (16 units)			Year 1	Spring Quarter (14 units)		
Course	<u>Course Title</u>	<u>Units</u>		Course	<u>Course Title</u>	<u>Units</u>		Course	<u>Course Title</u>	<u>Units</u>	
 CPTG 121	Introduction to Computer Science I*	4		 CPTG 122	Introduction to Computer Science II*	4		 CPTG 244	Data Structures*	4	
 MATH 121	College Algebra	4		 MATH 122	Trigonometry & Analytical Geometry*	4		 ENGL 113	College Writing III*	3	
 ENGL 111	College Writing I	3		 ENGL 112	College Writing II*	3		 HLSC 120	Lifetime Fitness	2	
 UNST 101	First Year Seminar	1		 UNST 101	First Year Seminar	1		 UNST 101	First Year Seminar	1	
 HUMN 10X	HUMN Theme Course	4		 RELB X00	Theme IIIBiii - Scripture Elective	4		 THM1 X00	Theme I Elective	4	
Year 2	Fall Quarter (16 units)			Year 2	Winter Quarter (16 units)			Year 2	Spring Quarter (16 units)		
<u>Course</u>	<u>Course Title</u>	<u>Units</u>		<u>Course</u>	<u>Course Title</u>	<u>Units</u>		<u>Course</u>	<u>Course Title</u>	<u>Units</u>	
 CPTG 245	Computer Organization & Assembly Language Programming*	4		 CPTG 255	Systems & Network Programming*	4		 MATH 276	Discrete Math*‡	4	
 CPTG/C X00	Computer Science Cognate Elective	4		 CPTG/C X00	Computer Science Cognate Elective	4		 PHYS 117	Introduction to Physics	4	
 MATH 131	Calculus I*	4		 WDLG 152	World Language II*	4		 PHYS 117L	Introduction to Physics Lab	0	
 WDLG 151	World Language I	4		 SSCI 20X-SL	SSCI Theme Course (with Service Learning)	4		 WDLG 153	World Language III*	4	
								 THM3 X00	Theme III Elective	4	
Year 3	Fall Quarter (15.5 units)			Year 3	Winter Quarter (16 units)			Year 3	Spring Quarter (16 units)		
<u>Course</u>	<u>Course Title</u>	<u>Units</u>		<u>Course</u>	<u>Course Title</u>	<u>Units</u>		<u>Course</u>	<u>Course Title</u>	<u>Units</u>	
 CPTG 485	Seminar*	0.5		 CPTG 334	Systems Analysis*†	4		 CPTG 324	Programming Languages*†	4	
 CPTG 3/400	Computer Science Upper Division Elective*	4		 THM2 X00	Theme II Elective	4		 CPTG 3/400	Computer Science Upper Division Elective*	4	
 BIOL 111	General Biology I*	4		 elct 3/400	Upper Division Elective	4		 RLGN 304	Adventism in Global Perspective*	4	
 BIOL 111L	General Biology I Lab*	1		 elct X00	Elective	4		 THM3 3/400	Theme III Elective Upper Division*	4	
 elct 3/400	Upper Division Elective	2									
 elct X00	Elective	4									
Year 4	Fall Quarter (15.5 units)			Year 4	Winter Quarter (16 units)			Year 4	Spring Quarter (17 units)		
<u>Course</u>	<u>Course Title</u>	<u>Units</u>		<u>Course</u>	<u>Course Title</u>	<u>Units</u>		<u>Course</u>	<u>Course Title</u>	<u>Units</u>	
 CPTG 434	Operating Systems*‡	4		 CPTG 3/400	Computer Science Upper Division Elective*	4		 CPTG 445	Computer Architecture*‡	4	
 CPTG 485	Seminar*	0.5		 UNST 404U-SL	Senior Seminar: Religion, Values & Social Responsibility (with Service Learning)*	4		 CPTG 485-SL	Seminar (with Service Learning)*‡	1	
 elct 3/400	Upper Division Elective	4		 elct X00	Elective	8		 THM2 X00	Theme II Elective	4	
 elct X00	Elective	7						 NSCI 40X	NSCI Theme Course*	4	
								 elct 3/400	Upper Division Elective	4	