

SUGGESTED COURSE STUDY FOR 3-2 COMBINED PLAN IN ENGINEERING
Computer Science (CS) Sequence
updated August 2026

The courses in the computer science sequence prepare students for two years of work leading to the degree of Bachelor of Science at the California Institute of Technology or the School of Engineering at Columbia University. The suggested schedule below assumes students do not have any AP credits or foreign language proficiency; students with advance placement are encouraged to take additional electives listed at the bottom. Note that courses may not necessarily be offered in the desired semesters, and should make contingencies and work with the relevant departments to ensure they complete all the courses listed below.

Questions about this 3-2 CS sequence should be addressed to Prof. Justin Li; students with general questions about the 3-2 Program should contact Prof. Alec Schramm.

<u>Fall</u>	<u>Spring</u>
Year 1	
FYS	FYS
Physics 107	Physics 110
+Calculus I	+Calculus II
CS 131	CS 229
Year 2	
Foreign Language I	Foreign Language II
#Core	#Core
Physics 230	CS 239
%Math 212/214	%Math 212/214
Year 3	
CS 317	Chemistry 120/130
Math 340	Math 210
Physics 250/310	Physics 250/310
#Core	!Economics 101

+ Prospective 3-2 students must place into Math 110 or above. Please consult the Mathematics Department for details.

Students are advised to choose courses which satisfy more than one Core distribution requirement.

% Prospective 3-2 students must take Math 210 and 214 rather than CS 149.

! Economics 101 is required by Columbia

We recommended the following electives in Math and CS:

CS 313: Graphics

CS 349: Robotics

CS 383: Computer Security

CS 337: Programming Languages & Compilers

CS 379: Operating Systems

Math 150: Statistical Data Analysis

Math 322: Number Theory

Math 350: Mathematical Logic

Math 352: Complexity and Computability

Math 370: Numerical Analysis

Math 380: Combinatorics