

Department of Computer Science  
OCCIDENTAL COLLEGE

**SUGGESTED COURSE STUDY FOR 3-2 COMBINED PLAN IN ENGINEERING**  
**Computer Science Sequence**  
(August 2021)

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

**Fall**

**Spring**

**Year 1:**

FYS  
Physics 110  
+Calculus I  
CS 131

FYS  
Physics 117  
+Calculus II  
CS 229

**Year 2:**

\*Foreign Language I  
#Core  
Physics 230  
%Math 210/212/214

\*Foreign Language II  
#Core  
CS 239  
%Math 210/212/214

**Year 3:**

CS 317  
%Math 210/212/214  
Physics 310  
#Core/Elective

Chem 120 or 130  
Math 340  
#Core  
†Econ 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.

\*If foreign language proficiency is met with fewer than two courses, additional electives may be chosen from any department.

%Prospective 3-2 students must take Math 210, 212 and 214 rather than CS 149 and 307.

† Econ 101 is required by Columbia

**Recommended electives in mathematics and computer science are the following courses:**

*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*