Sample Computer Science Curriculum for the 3-2 Program

Updated Fall 2023

Below is a sample schedule for students majoring in computer science and pursuing the 3-2 program with Columbia.

Some general notes for all 3-2 students:

1. Specific classes for specific engineering majors are not included here, so be sure to review the Columbia guide for other requirements.
2. Any core courses without numbers below are **attributes**, and thus there are many courses that satisfy those requirements. When searching for such courses, search by the given attributes.
3. One of the core courses during the first year must have the *Eloquentia Perfecta 1* attribute.
4. Some courses can be taken during different semesters, although the major courses are often only offered in the semesters mentioned below.
5. Some courses mentioned below depend upon placement (such as ENGL 1102 or MATH 1206), so be sure to consider this when making your three-year plan.
6. The attributes Global Studies and Pluralism are not explicitly included but must be taken. Be sure these are attributes on core courses you take.
7. Upper-level electives should match with those requirements for the specific engineering major chosen when transfering to Columbia whenever relevant.
8. Requirements for Columbia are similar to, but distinct from, those for Case Western. Students interested in either program should refer to the 3-2 Engineering site for more information.

- Computer science majors that do not place into at least calculus 2 (MATH 1207) and Composition II (ENGL 1102) will be required to take summer courses. This may also be true for students who do place into these courses but opt for certain engineering majors.
- Computers science majors cannot major in computer science upon transferring to Columbia.

First year

Fall		Spring	
CISC 1600	Computer Science I	CISC 2000	Computer Science II
CISC 1610	Computer Science I Lab	CISC 2010	Computer Science II Lab
MATH 1207	Calculus II	MATH 2001	Discrete Mathematics
ECON 1100/1200	Basic Macro/Microeconomics	THEO 1000	Faith and Critical Reason
PHIL 1000	Philosophy of Human Nature	—	Understanding Historical Change
ENGL 1102	Composition II	—	Fine & Performing Arts

Second year

Fall		Spring	
CISC 2200	Data Structures	CISC 4080	Computer Algorithms
MATH 2004	Multivariable Calculus I	MATH 2005	Multivariable Calculus II
PHYS 1701	Physics I	PHYS 1702	Physics II
PHYS 1703	Physics I Recitation	PHYS 1704	Physics II Recitation
PHYS 1511	Physics I Lab	PHYS 1512	Physics II Lab
PHIL 3000	Philosophical Ethics	CISC 3593	Computer Organization
—	Texts and Contexts (EP 2)	—	Sacred Texts and Traditions

Third year

Fall		Spring	
CISC 3500	Database Systems	CISC 3595	Operating Systems
CISC 4631	Data Mining	CISC 4090	Theory of Computation
MATH 2006	Linear Algebra	MATH 3002	Differential Equations
CHEM 1311	General Chemistry I Recitation	CISC 4615	Data Communications and Networks
CHEM 1321	General Chemistry I	—	Senior Values (EP 4)
CHEM 1331	General Chemistry I Lab		
—	Advanced Core Course (ideally EP 3)		