Sample Math-Computer & Information Sciences 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.

- Math-CIS majors cannot major in computer science upon transferring to Columbia.

First year

Fall		Spring	
MATH 1206	Calculus I	MATH 1207	Calculus II
CISC 1600	Computer Science I	CISC 2000	Computer Science II
CISC 1610	Computer Science I Lab	CISC 2010	Computer Science II Lab
ECON 1100/1200	Basic Macro/Microeconomics	THEO 1000	Faith and Critical Reason
PHIL 1000	Philosophy of Human Nature	—	Fine & Performing Arts
ENGL 1102	Composition II	—	Understanding Historical Change

Second year

Fall		Spring	
CISC 2200	Data Structures	MATH 2004	Multivariable Calculus I
MATH 2001	Discrete Mathematics	MATH 2006	Linear Algebra I
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	—	Sacred Texts and Traditions
—	Texts and Contexts (EP 2)	CISC 4080	Computer Algorithms

Third year

Fall		Spring	
MATH 4006	Numerical Analysis	MATH 3002	Differential Equations
MATH 3006	Probability	—	Advanced Core Course
CHEM 1311	General Chemistry I Recitation	CISC 4090	Theory of Computation
CHEM 1321	General Chemistry I	MATH 2005	Multivariable Calculus II
CHEM 1331	General Chemistry I Lab	—	Senior Values (EP 4)
—	EP 3		
CISC —	Computer Science Elective (above 2000)		