

## A Guide for BA Transfer Students—New Curriculum

(Current as of Friday, August 25, 2023)

The place to check the precise requirements is the appropriate Quick Guide; they're all linked to from [here](#). There are three general rules :

1. Your school advisor is in charge of whether you can transfer credits from another school—your CS advisor has nothing to say about that.
2. Up to four transfer courses are accepted toward the major. Up to two transfer courses are accepted toward the minor or concentration. Calculus, linear algebra, and probability/statistics courses can be transferred in addition to the four/two-course limits.. If you've taken more courses than that, we don't want you to repeat something you already know, but you and your advisor together will find acceptable substitutes.
3. The person who can approve “importing” a course for credit is the person who teaches it here; your CS advisor cannot, though they can often offer guidance. Your CS advisor can help you find the right person to ask; you want to pass along a detailed syllabus and not just a catalog description. When you get approval, email that to [ug-advising@cs.columbia.edu](mailto:ug-advising@cs.columbia.edu) and CC your CS advisor.

Here are the advisors for the courses most commonly imported.

W1004 (Introduction to Programming)	Prof. Adam Cannon	<a href="mailto:cannon@cs.columbia.edu">cannon@cs.columbia.edu</a>
	Prof. Paul Blaer	<a href="mailto:pblaer@cs.columbia.edu">pblaer@cs.columbia.edu</a>
W3134 (Data Structures)	Prof. Paul Blaer	<a href="mailto:pblaer@cs.columbia.edu">pblaer@cs.columbia.edu</a>
	Prof. Daniel Bauer	<a href="mailto:bauer@cs.columbia.edu">bauer@cs.columbia.edu</a>
W3157 (Advanced Programming)	Prof. Jae Woo Lee	<a href="mailto:jae@cs.columbia.edu">jae@cs.columbia.edu</a>
W3203 (Discrete Mathematics)*	Prof. Ansaf Salleb-Aouissi	<a href="mailto:ansaf@cs.columbia.edu">ansaf@cs.columbia.edu</a>
W3827 (Fundamentals of Computer Systems)	Prof. Simha Sethumadhavan	<a href="mailto:simha@columbia.edu">simha@columbia.edu</a>
	Prof. Martha Kim	<a href="mailto:martha@cs.columbia.edu">martha@cs.columbia.edu</a>
	Prof. Dan Rubenstein	<a href="mailto:danr@cs.columbia.edu">danr@cs.columbia.edu</a>
Calculus	Prof. George Dragomir	<a href="mailto:dragomir@math.columbia.edu">dragomir@math.columbia.edu</a>

We teach introductory programming using Java; many other places use C++. That's probably fine, and will probably let you import W1004. However, we teach data structures using Java, not C++; if you only know the latter, you'll have to teach yourself the former. That shouldn't be too hard, since the essential concepts are the same (and any Columbia CS major should be capable of learning a new language that way). Very few people can import 3157 (Advanced Programming), and it's a prerequisite for most of the 4000-level courses. 3857 (Fundamentals of Computer Systems) is a toss-up; some people can import it, some can't. The required math courses are a bit more complex:

- Although we prefer our Computational Linear Algebra class (COMS W3251), we will accept Linear Algebra (APMA E3101, APMA E2101, MATH UN2010, or MATH UN2015).
- The probability courses we require are one of STAT UN1201, STAT GU4001, IEOR E3658, or MATH UN2015.
- MATH UN2015 satisfies both the probability and linear algebra requirements, but that probably isn't enough if you want to take Machine Learning. In that case, take separate courses.
- If you've taken discrete mathematics elsewhere and probability in some separate course, you may be able to test out of the course; see <http://www.cs.columbia.edu/~ansaf/more.html> for details.

Finally, if you have any questions about your program, contact your CS advisor. If you have questions about whether you have the prerequisites for a given course (perhaps through a job rather than formal study), contact the person who is teaching it—though there are a few exceptions, most of us don't bite...