Mathematics & Computer Science

Computer Science Major – Class Planning (Sequencing/Selection)

Take Math 122 as soon after Math 14 as possible.

CSCI 161 and 163 build on Math 51, so it's best not to leave too much time in between 51 and at least one of those. Most people take 163 before 161, but this is not required.

Aside from CSCI 10-60-61, there's very little programming in the lower-division requirements, so if they take 10-60-61 during their first year, students should take at least one programming-oriented upper-div during their sophomore year (probably a COEN they're interested in, or one of the CSCI courses listed below - NOT CSCI 161 or CSCI 163, these focus more on theory than programming). It's 100% fine if this means not finishing the lower-division until junior year. In particular, COEN 20 is only a prereq for COEN 177 and CSCI 180, and COEN 21 isn't a prereq for anything we require. There are only 9 required upper divs, so the junior and senior year have plenty of room.

The upper-div CSCI classes with significant programming are: CSCI 180, 183, 182, 169, 184, 168, 187.

CSCI 61 should be taken before any upper-div CSCI or COEN courses. If someone is delayed in finishing 10-60-61, they can take their math (51, 53, 122) and COEN 21 without having finished 61. The cross-listed Math/CSCI courses are fine if they've had 10.

Most people take COEN 21 before COEN 20, but you can take them in either order.

ENGL 181 is *only* for students in the Engineering School. This class does **not** count towards advanced writing requirement for CS majors.

CSCI prereqs to watch out for:

- Math 51 is a prereq for: 161, 163
- Math 53 is a prereq for M 123, 166, 183
- Math 122 is a prereq for 183
- Math 178 is a prereq for 181
- COEN 20 is a prereq for 180

Required COEN:

- CSCI 61 is a prereq for COEN 20
- COEN 21 has no prereqs
- COEN 20 is a prereq for 177

Required for CS Major	Prerequisites
MATH 51	None
MATH 53	MATH 13
MATH 122	MATH 14
CSCI 161	MATH 51
CSCI 163 (was 163A)	CSCI 61, MATH 51
COEN 20	CSCI 61
COEN 21	None
COEN 177	CSCI 61, COEN 20

CSCI Upper Div for CS Emphases	Prerequisites
CSCI 127 (was 164)	CSCI 10; MATH 122 recommended
CSCI 146	CSCI 10, MATH 14, MATH 53
CSCI 147	MATH 122, CSCI 146
CSCI 162	MATH 51
CSCI 164 (was 163B)	CSCI 163
CSCI 165 (was 163C)	MATH 51, CSCI 10; CSCI 163 recommended
CSCI 166	CSCI 10, MATH 53
CSCI 168	CSCI 10, MATH 13
CSCI 169	CSCI 61, MATH 51
CSCI 180	COEN 20
CSCI 181	MATH 178, CSCI 60
CSCI 182	CSCI 61, MATH 53 & 122; CSCI 169 recommended
CSCI 183	CSCI 61, MATH 53 & 122; CSCI 169 recommended
CSCI 184	CSCI 183
CSCI 187	CSCI 61

COEN Upper Div for CS Emphases	Prerequisites
Other COENs	CSCI 61
COEN 122	COEN 20, 21
COEN 140	MATH 53 & 122, CSCI 61
COEN 145	CSCI 61, COEN 122
COEN 146	MATH 122 recommended
COEN 148	CSCI 61, MATH 122
COEN 152	CSCI 61, COEN 20
COEN 162	COEN 146
COEN 164	COEN 161
COEN 166	CSCI 61, MATH 51
COEN 168	CSCI 61, COEN 20
COEN 169	CSCI 61, MATH 122
COEN 172	CSCI 61, MATH 51
COEN 173	CSCI 61, MATH 51
COEN 175	CSCI 61, COEN 20
COEN 180	COEN 20 recommended

COEN Hardware courses (not recommended): 122, 123, 127, 145. Some of these have additional prereqs.