

# Mathematics & Computer Science

## Computer Science Major – Class Planning (Sequencing/Selection)

Take Math 122 as soon as possible 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 10-60-61-62, there's very little programming in the lower-division requirements, so once you finish 10-60-61-62, take at least one programming-oriented upper-division course during your sophomore year (probably a CSEN that interests you, or one of the CSCI courses listed below - NOT CSCI 161 or CSCI 163, as these focus more on theory than programming). It's fine if this means you don't finish the lower-division until your junior year. In particular, CSEN 20 is only a prerequisite for CSEN 177 and CSCI 180, and ECEN 21 isn't a prerequisite for anything we require. There are only 9 required upper division courses, so junior and senior years have plenty of room.

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

CSCI 62 should be taken before any upper-div CSCI or CSEN courses. If you are delayed in finishing 10-60-61-62, you can take your required math courses (51, 53, 122) and CSEN 21 without having finished 62. You can take any cross-listed Math/CSCI course if you have taken CSCI10.

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

ENGL 181 is *only* for students in the Engineering School. This class **does not** satisfy the advanced writing requirement for CSCI 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
- CSEN 20 is a prereq for 180

### Required CSEN:

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

<b>Required for CS Major</b>	<b>Prerequisites</b>
MATH 51	None
MATH 53	MATH 13
MATH 122	MATH 14
CSCI 161	MATH 51
CSCI 163 (was 163A)	CSCI 61, MATH 51
CSEN 20	CSCI 61
ECEN 21	None
CSEN 177	CSCI 61, CSEN 20

<b>CSCI Upper Div for CS Emphases</b>	<b>Prerequisites</b>
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	CSEN 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

<b>CSEN Upper Div for CS Emphases</b>	<b>Prerequisites</b>
Other CSEns	CSCI 61
CSEN 122	CSEN 20, ECEN 21
CSEN 140	MATH 53, MATH 122, CSCI 61
CSEN 145	CSCI 61, CSEN 122
CSEN 146	MATH 122 recommended
CSEN 148	CSCI 61, MATH 122
CSEN 152	CSCI 61, CSEN 20
CSEN 162	CSEN 146
CSEN 164	CSEN 161
CSEN 166	CSCI 61, MATH 51
CSEN 168	CSCI 61, CSEN 20
CSEN 169	CSCI 61, MATH 122
CSEN 172	CSCI 61, MATH 51
CSEN 173	CSCI 61, MATH 51
CSEN 175	CSCI 61, CSEN 20
CSEN 180	CSEN 20 recommended

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