

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

| 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 |
| CSEN 20 | CSCI 61 |
| ECEN 21 | None |
| CSEN 177 | CSCI 61, CSEN 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 | 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 |

| CSEN Upper Div for CS Emphases | Prerequisites |
|---------------------------------------|----------------------------|
| 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.