

2021-2022 IE Major / CS Minor Guidelines**Important Notes**

- Declaration of a CS minor is necessary for students to enroll in many upper-level COMP_SCI courses
- Students pursuing a CS minor should visit the [Computer Science Undergraduate website](#).
- All courses used towards the CS minor must be taken for a letter grade (not P/N).
- This information is intended only as a guide and does not replace any official communications from the CS department. Questions about the CS minor should be directed to advising@cs.northwestern.edu.

Course	Minor in Computer Science	BS in Industrial Engineering
<input type="checkbox"/> Math 220-1, 220-2, 228-1	Prerequisite	Math requirement
<input type="checkbox"/> Gen_Eng 205-1,2, 3 (EA 1, 2, 3)	Prerequisite	Engineering Analysis requirement
<input type="checkbox"/> COMP_SCI 111	Core	Major Requirement
<input type="checkbox"/> COMP_SCI 150	Core	Major Requirement
<input type="checkbox"/> COMP_SCI 211	Core	Basic Engineering (computer programming)
<input type="checkbox"/> COMP_SCI 212	Core	General Tech Elective #1
<input type="checkbox"/> COMP_SCI 213	Core	Basic Engineering (Computer Arch. area, by petition)
<input type="checkbox"/> COMP_SCI 214	Core	General Tech Elective #2
<input type="checkbox"/> COMP_SCI 339	Breadth Requirement (Systems)	Basic Engineering (for COMP_SCI 217, by petition)
<input type="checkbox"/> COMP_SCI 3XX	Breadth Requirement (see below)	Unrestricted Elective #1
<input type="checkbox"/> COMP_SCI 3XX	Breadth Requirement (see below)	Unrestricted Elective #2

Additional Curricular Notes:

- Students unable to register for COMP_SCI 339 will be required to take COMP_SCI 217 to fulfill requirements for the BS in Industrial Engineering. This requirement will not be waived. Computer Science makes no guarantees about any student's ability to register for COMP_SCI 339.
- Students may petition to count CS 213 towards the basic engineering requirement, but there is no guarantee of approval.
- Courses taken to fulfill breadth requirements must come from three different areas (Theory, Systems, Artificial Intelligence, Interfaces, and Software Development/Programming Languages).
- Completing a CS minor will fill two of three general technical electives, and 2 of 5 unrestricted electives in the 48 units needed for the IE degree. Inability to take COMP_SCI 339 to replace COMP_SCI 217, or an unsuccessful petition to count CS 213 towards basic engineering, will fill additional unrestricted electives in completing the CS minor.