

## **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 Prof. Ian Horswill at [ian@northwestern.edu](mailto:ian@northwestern.edu).

Course	Minor in Computer Science	BS in Industrial Engineering
<input type="checkbox"/> Math 220-1, 220-2, 228-1	Background	Math
<input type="checkbox"/> Gen_Eng 205-1 (EA 1)	Background	Engineering Analysis
<input type="checkbox"/> COMP_SCI 111	Core	Major Requirement
<input type="checkbox"/> COMP_SCI 151	Core	General Tech Elective #1
<input type="checkbox"/> COMP_SCI 211	Core	Basic Engineering (computer programming)
<input type="checkbox"/> COMP_SCI 212	Core	General Tech Elective #2
<input type="checkbox"/> COMP_SCI 213	Core	Unrestricted Elective #1 (some have petitioned towards basic engineering under computer arch.)
<input type="checkbox"/> COMP_SCI 214	Core	General Tech Elective #3
<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	Unrestricted Elective #2
<input type="checkbox"/> COMP_SCI 3XX	Breadth Requirement	Unrestricted Elective #3

### **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.
- Courses taken to fulfill breadth requirements must come from three different areas (Theory, Systems, Artificial Intelligence, Interfaces, and Security).
- Completing a CS minor will fill all general technical electives, and 3 of 5 unrestricted electives in the 48 units needed for the IE degree. Students who cannot take COMP\_SCI 339 to replace COMP\_SCI 317 will fill an additional unrestricted elective in completing the CS minor.