Bachelor of Science in Industrial Engineering (BSIE)
Suggested Plan of Study AY 2023-2024

	Fall	Winter	Spring	Key Course to have Completed
Freshman	Math 220-1 EA 1 Basic Science w/ Lab DTC 1	Math 220-2 EA 2 COMP_SCI 111 Theme	Math 228-1 EA 3 COMP_SCI 150 DTC 2	Math 220-1,2; 228-1 EA 1, 2, 3 COMP_SCI 111, 150 DTC 1, 2
Sophomore	Math 228-2 Unrestricted Elective IEMS 302 Basic Science	COMP_SCI 217 ESM 245 IEMS 303 IEMS 313	CIV_ENV 205 Theme IEMS 304 IE/OR Elective	Math 228-2 ESAM 245 IEMS 302, 303, 304, 313 COMP_SCI 217 CIV_ENV 205
Junior	IE/OR Elective Unrestricted Elective IEMS 315 Basic Science	MS Elective Theme IEMS 317 General Tech Elective	General Tech Elective Unrestricted Elective Theme IEMS 394	IEMS 315, 317, 394
Senior	MS Elective General Tech Elective Theme Basic Science	General Tech Elective Unrestricted Elective Theme IE/OR Elective	P&L Elective Unrestricted Elective Theme Communications Course	

- The plan above is a suggested plan only. Fulfillment of IE degree options has a high degree of flexibility, as long as prerequisite requirements are met, and as long as key requirements are completed on schedule as indicated above.

- All students are required to meet quarterly with a department advisor. Students should take advantage of these advisor meetings to plan courses to make appropriate and satisfactory degree progress. If you are a McCormick co-op student, you are especially encouraged to meet with your advisor to plan courses to accommodate your co-op schedule.

- A note about prerequisites:
  - Prerequisite chains include IEMS 302→303→304; and IEMS 302→315→317.
  - Math 228-2 is a co-req for IEMS 302, and IEMS 303 is a co-req for IEMS 315. "Co-req" means you must have either completed the course, or be concurrently enrolled.
  - IEMS 313 requires prior completion of CS 111; IEMS 303 requires prior completion of CS 150.
  - IEMS 394 requires prior completion of IEMS 302, 303, 304, 313, 315, 317, without exception.

- Although this is subject to change from year to year, in general:
  - IEMS 302, 317 are offered Fall/Winter
  - IEMS 315 and Civ_Env 205 are offered Fall/Spring
  - IEMS 303, 304, 313 are offered every quarter
  - CS 111, 150, and 217 are offered every quarter
  - You should plan to take IEMS 394 in Junior Spring or Senior Fall. Delay until Senior Spring requires permission from the Dir. of Undergrad Studies. The course is not offered in winter.

Bachelor of Science in Industrial Engineering (BSIE)
Tips for Students with Minors/Dual Degrees/Double Majors AY 2023-2024

- Student who pursue multiple degrees or certificates often have more than 48 required credits. Previously earned credits (e.g., AP/IB exams) and creative use of double counting can help these students graduate in four years or less.
- For dual degree or double major students, IN GENERAL there are no double-counting restrictions.
    - This is not true for all programs! Be sure to check with your advisor(s).
- An example plan for an IEMS major with a McCormick Computer Science minor is shown below.
    - The CS minor can be completed in the 48 units required for the BSIE.
    - Courses in red are required by the CS minor AND count towards BSIE requirements.

	Fall	Winter	Spring	Key Course to have Completed
Freshman	Math 220-1 EA 1 Basic Science w/ Lab DTC 1	Math 220-2 EA 2 COMP_SCI 111 Theme	Math 228-1 EA 3 COMP_SCI 150 DTC 2	Math 220-1,2; 228-1 EA 1, 2, 3 COMP_SCI 111, 150 DTC 1, 2
Sophomore	Math 228-2 COMP_SCI 211 (UE) IEMS 302 Basic Science	Theme ESM 245 IEMS 303 IEMS 313	CIV_ENV 205 COMP_SCI 213 (UE) IEMS 304 IE/OR Elective	Math 228-2; ESM 245 COMP_SCI 211, 213 IEMS 202, 303, 304, 313 CIV_ENV 205
Junior	IE/OR Elective COMP_SCI 214 (UE) IEMS 315 Basic Science	MS Elective COMP_SCI 212 (UE) IEMS 317 Theme	General Tech Elective COMP_SCI 339 (217)* IEMS 394 Theme	IEMS 315, 317, 394 COMP_SCI 212, 214, 339
Senior	MS Elective CS Breadth (GTE) Theme Basic Science	Unrestricted Elective CS Breadth (GTE) Theme IE/OR Elective	P&L Elective General Tech Elective Theme Communications Course	2 CS Breadth courses (CS 3XX)

* COMP_SCI 339 can replace COMP_SCI 217 by petition. If COMP_SCI 339 cannot be taken or the petition is denied, it can be replaced with a different Breadth Requirement and count as a General Tech Elective instead of the IEMS computing requirement.